FAMILY-FRIENDLY WORKPLACE PROGRAMS AND

THE CONSEQUNECES FOR WOMEN WORKERS IN KOREA

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Abstract

This dissertation aims to examine the effect of family-friendly programs on Korean female managers' lives using five waves of the Korean Women Manager Panel (2007, 2008, 2010, 2012, and 2014). This research investigates: (1) the determinants of the use of family-friendly programs, (2) the consequences of the use of long-term leave programs for users' wage growth and promotion, and (3) the effect of the use of family-friendly programs on fertility plans (i.e., intention to have additional children after having one child).

Across chapters, this dissertation finds workplace culture plays a pivotal role in Korean women managers' decisions to use family-friendly programs and intention to have more children after the first child. Workplace culture also is used as a basis for penalties imposed by employers on the users for the use of family-friendly programs, because it reflects employers' expectation based on the norm of ideal workers and has a significant impact on workers' perception on easiness of using family-friendly programs and risk of career penalty after the use of programs. In terms of the determinants of the use of family-friendly programs (Chapter 4), female managers having a higher level of human capital are less likely to use family-friendly programs, since they face a higher level of employers' expectation based on the ideal worker norm. Two other factors (i.e., the individual's position within a company and the macro features of a company) interacting with workplace culture also affect female managers use of family-friendly programs. In terms of career penalties (Chapter 5), since using long-term leave programs violates the norm of the ideal worker in the workplace, companies penalize users on this basis, resulting in a family-hostile workplace culture. In Chapter 6, workplace culture leads to variations in the fertility-boosting effect of using family-friendly programs; family-hostile workplace culture reflecting employers' view that family-friendly programs are costly impacts individual's

perception on risk of career penalty for using family-friendly programs. Different experiences with workplace culture during/after leaves cause a differential in fertility intention.

This research makes an important contribution to the literature on family-friendly programs in two respects. First, this is one of the first studies to empirically examine the relationship between the use of family-friendly programs and their impacts on the life of female managers in Korea. In addition, I speculate that it is this organizational context that leads to similar family-friendly program-related experiences among women workers in Korea and in Western societies despite the different cultural contexts. These consistent findings – consistent across countries – seem to suggest that the theoretical frameworks developed in Western literature are also relevant to Korea, and we may apply them to the Korean context when researching the influence of workplace culture on employees' lives.

Second, this research contributes to the literature on methodology for studying family-friendly programs in Korea. By using panel data containing information on multi-levels, this dissertation demonstrates a method of analysis that can be adapted to further research on employees' experiences related to family-friendly programs.

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Introduction

1.1 Introduction

Increased women's labor participation has led to dramatic changes in family life in economically developed countries since World War II. These changes in the family are closely related to low fertility, a deficit in caregiving for family members, and the unequal division of unpaid work between genders. Many employed women struggle to balance work and family obligations. To ameliorate gender inequality in the workplace and reconcile work-family conflicts, many governments in economically advanced countries have implemented various family-friendly policies. For example, the U.S. government enacted "the Family and Medical Leave Act of 1993" and requires employers to provide 12 weeks of unpaid leave for eligible employees.

However, despite many efforts to reduce family-work conflicts, their success in reconciling work and family responsibilities is unclear. As ever, many employees experience difficulty in balancing work and family in their lives. Moreover, female employees are often at a disadvantage to their male counterparts in terms of power and are exposed to discrimination in career development even when they do not have many family obligations. Consequently, female workers who have a family to support and at the same time aspire to develop their career have little choice, but to either make compromises in their career or sacrifices in their family life.

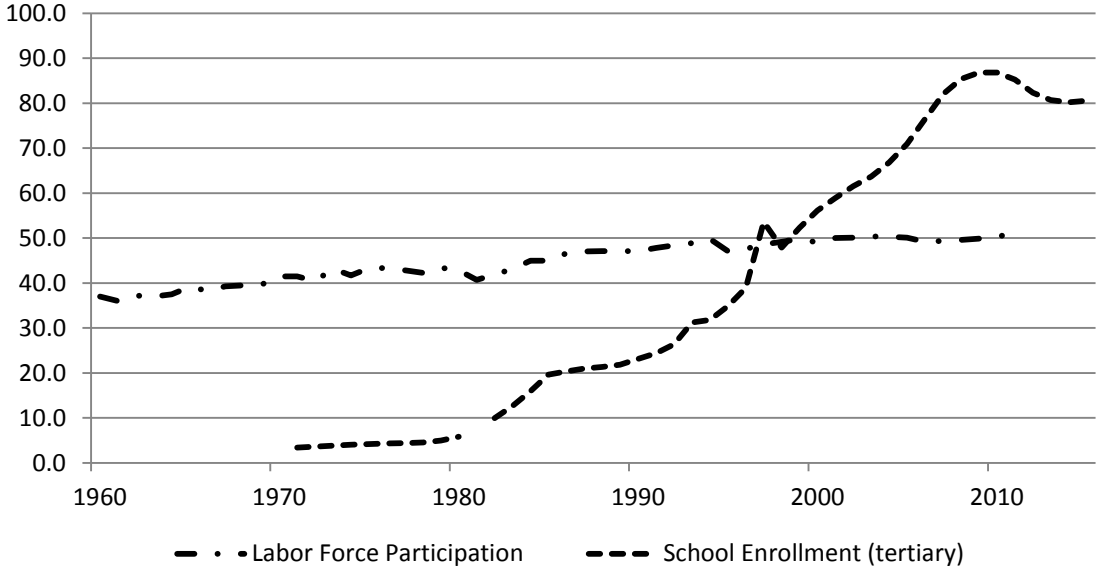
Most importantly, the literature does not provide clear evidence that family-friendly policies succeed in helping employees balance family-work obligations and achieve gender equality, despite the intended purpose of the policies to do so. A few studies reveal that the

policies do not reduce disadvantages that female workers experience in opportunities, promotion, or wages, and even exacerbate gender inequality. For example, Glass (2004) finds that the use of work-family programs negatively affects female worker's wage growth, and that such negative effects are greater among female workers in professional and managerial occupations than among their counterparts who are non-professional or in a lower position in a corporation. Aisenbrey, Evertsson, and Grunow (2009) also find that maternity leave given at the time of birth of a child adversely affects women's job stability across the different welfare-state regimes.

With economic development in South Korea (hereafter Korea), there were significant changes in female education and labor participation during the second half of the 20th century. Increase in female education and labor participation of Korean women is closely related to changes in the Korean family and population; the mean age of the first marriage has increased and the number of the never-married has also rapidly grown, which have a significant influence on fertility rates.

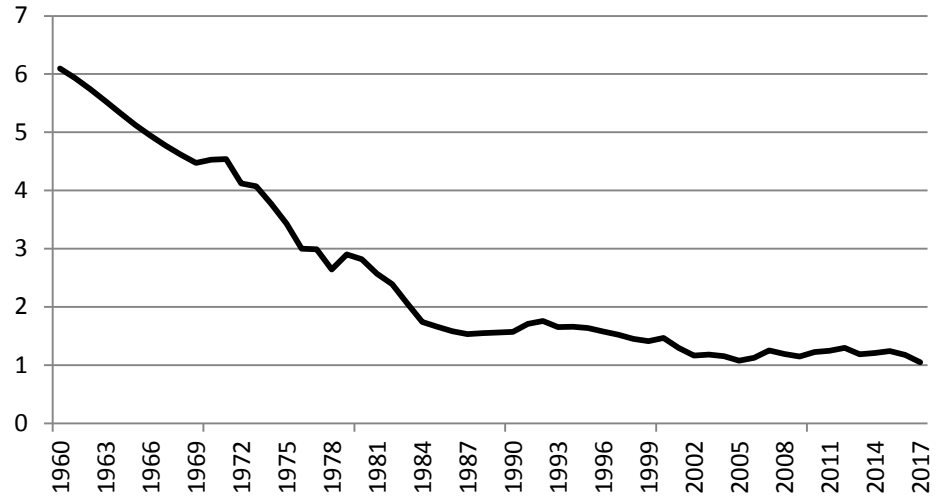
The fertility rate in Korea has dramatically diminished since 1960s. It dropped lower than the population replacement rate in the early 1980s, and since 2001, Korea has been the lowest of low fertility countries (below 1.3). Compared to other economically developed countries' fertility rates, Korea has one of the lowest total fertility rates in the world. The literature points out that multiple factors, such as an increase in age at first marriage, the success of family planning policies, the use of contraception, and abortion, have all contributed to this low fertility phenomenon (Cho, Arnold, and Kwon 1982; Choe and Park 2006; Jun 2004; Lee and Choi 2015).

Figure 1.1 Changes in Female Education, Women Labor Force Participation in Korea



Source: 1) School enrollment rate: World Bank Databank (retrieved on May 11, 2018), 2) Labor participation Rate: Statistics Korea (retrieved on May 12, 2018)

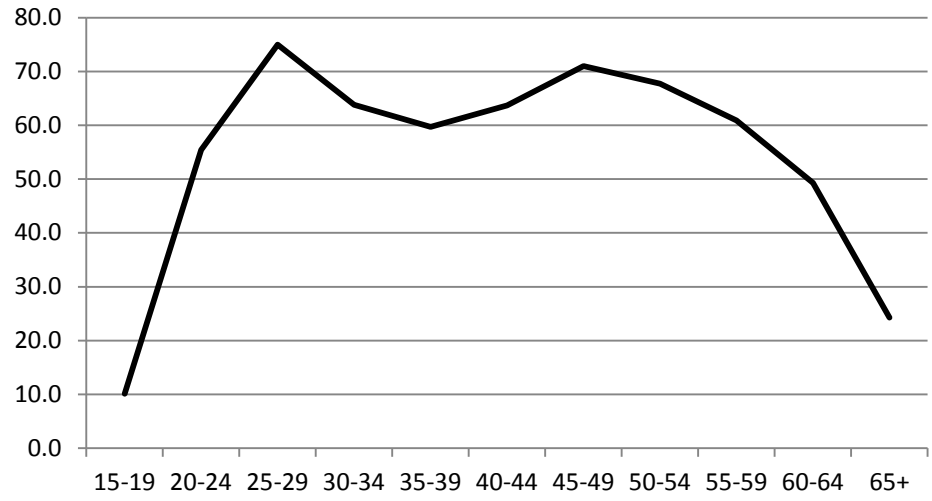
Figure 1.2 Change in Total Fertility Rate in 1960-2017



Source: World Bank Databank (Retrieved on May 11, 2018)

It is well-known that changes in women's marriage and childbearing are closely related to changes in their economic activity participation (Park and Kim 2003). As Figure 1.1 presents, women's labor participation has increased, and labor has become an important part of women's lives. At the same time, as Figure 1.3 indicates, Korean women's labor participation rate by age has an M-shape. After completion of tertiary education, most women participate in the labor market, but in their 30s, when many get married, give birth, and care for children, many of them leave the labor market. Later, with completion of childbearing and childcare, some of them re-enter the labor market in their 40s.

Figure 1.3 Female Labor Force Participation Rate by Age in 2017



Source: Statistics Korea (retrieved on May 12, 2018)

This M-shape of labor participation implies that there is a negative relation between work and family obligation; becoming a mother and providing intensive childcare limit Korean

women's labor participation. Although men and women have similar levels of human capital in Korean labor market, childbearing and childcare burdens falling mainly on women force women out of the labor market. If they want to stay in the labor market, they risk damaging their family life. The fertility trend of Korea is contrary to the findings of previous studies that show a positive relation between total fertility rates and female's labor participation rates across OECD countries (e.g., Ahn and Mira 2002).

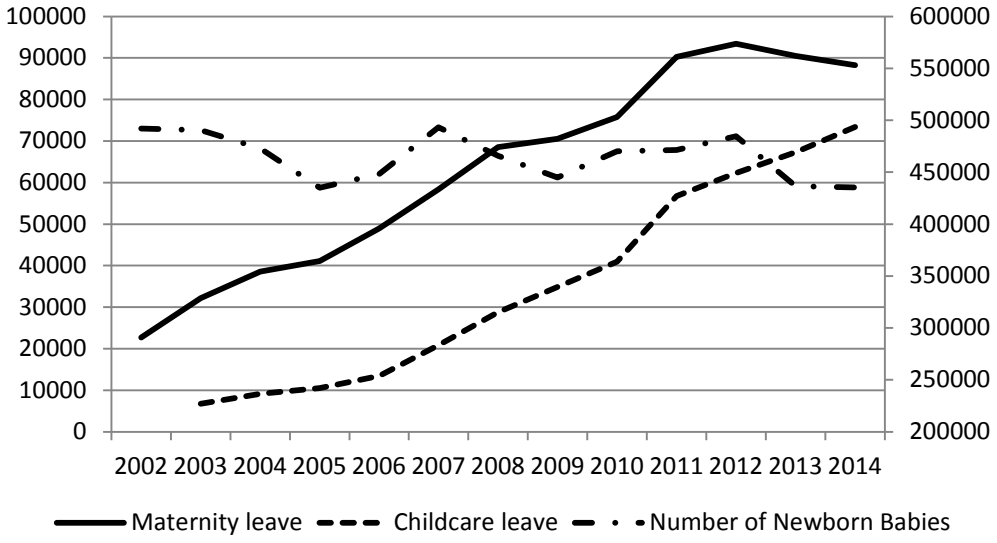
The continuing trend of low fertility since 2000 has drawn the attention of policymakers and motivated them to look into causes of low fertility and to intervene in various ways to reverse low fertility trends. They surmise that the above-mentioned conflicts at least partially contribute to low fertility. As a result, they have established plans to boost fertility rates at the national level and enacted and implemented family-friendly policies; huge portions of governmental budget has been invested into these programs. The Korean government established a comprehensive five-year Basic plan for Aging Society and Population three times (2006-2010; 2011-2015; 2016-2020) called the 'Saeromaji Plan'.[1] The plans adopt policies that provide economic and social support for childcare services and improve work-family balance and gender equity in the workplace (Lee and Choi 2015; Republic of Korea Committee on Low Fertility and Population Aging 2005, 2010, 2015). Moreover, the Korean government enacted the Act on Equal Employment[2] in 2001 to help female workers reconcile family obligations with paid work and subsequently increase fertility rates. This act encouraged companies to adopt family-work compatibility policies, such as childcare leave, flexible/reduced working hours, and the

1 새로마지플랜

2'The Act on Equal Employment (enacted in 2001)' was amended to 'Act on Equal Employment and Support for Work-Family Reconciliation' in 2007.

installation of corporation-affiliated childcare facilities (Lee and Lee 2011). Since the institutionalization of family-friendly programs, there has been a trend of the numbers of users of maternity leave and childcare leave rapidly increasing, despite a gradual decrease of newborn babies (See Figure 1.4). The use of long-term leave programs has become more common among female workers. Work-family balance has become an established norm in Korean society.

Figure 1.4 Change in Number of Maternity Leave Users, Childcare Leave Users, and Newborn Babies (Female only)



Source: 1) Number of the Users of Maternity leave and Childcare Leave: Park, Kim, and Lim (2016: 40, 44); 2) Number of Newborn Babies: Statistics Korea (retrieved on May 22)

Despite 10 years of policy implementation, however, the low fertility trend in Korea remains unchanged (See Figure 1.4). Although some family-friendly programs are starting to

have a boosting effect on fertility, the trend of delayed marriage and the increase in the numbers of those never married (known as causes of low fertility) have not changed. Although women form a substantial portion of the labor market, those aspects of the labor market that do not show changes in gender role expectations causes them not to get married and to postpone and/or give up the idea of having children.

The actual effect of family-friendly policies on the lives of women in Korea is not absolutely clear (Lee et al. 2010; Chang et al. 2007; Lee et al. 2004). There is evidence suggesting that the implementation of progressive laws and regulations have a limited impact on working conditions and the status of female workers in the Korean labor market. Unanticipated consequences of family-friendly policies have also been observed. The struggle of female workers to balance their family-work obligations continues: workers are discouraged from having children, or quit their careers in order to maintain family life. In short, well-intended family-friendly policies are ineffective, and may even negatively affect female workers.

To expand the literature on the reality of Korea, this research will inquire (1) the determinants of the use of family-friendly programs, (2) how the use of those programs affects female employees' career development (i.e., on wage growth and promotion), and (3) how the use of those programs affects female employees' intentions to have more children after the first child. This study examines the case of Korea, where in recent years many family-friendly policies were enacted but gender inequality in wages and promotion opportunities in the workplace remains high. To better understand the effects of the family-friendly programs on female employees' lives, I use the Korean Women Manager Panel (KWMP) survey conducted in 2007, 2008, 2010, 2012, and 2014. The sample was drawn from female managers working at

companies with more than 100 employees and the survey asked questions about their work experience and family life.

1.2 Types of Family-Friendly Programs

Scholars categorize family-friendly programs into different types. For example, Blair-Loy and Wharton (2002:823) classify family-friendly programs in three main categories: 1) Family-care policies 2) Flexibility policies, and 3) Policies on cutting back paid work hours. Table 1.1 presents examples of family-friendly programs and their definitions.

Table 1.1 Three Categories of Family-Friendly Programs

Family-care policies	Child-care or elder-care referral services or educational materials Dependent sick time: employees use own paid sick time to care for a dependent Paid or unpaid leave lasting more than two weeks to care for a dependent
Flexibility policies	Flextime (staggered office hours) : Employees determine the hours at which they stop and start working Flexplace/telecommuting: Employees work part of the time away from the office Compressed workweek: Employees work a full-time schedule in fewer than five days
Policies on cutting back paid work hours	Job sharing: Two employees share the responsibility of one full-time job Part-time: Employees are allowed to shift to part-time work

Source: Blair-Loy and Wharton (2002: 823)

Note: Maternity leave in Korea may belong to the category of family-care policies (paid or unpaid leave lasting more than two weeks to care for a dependent), when it comes to its characteristics (paid leave up to three months).

Scholars in Korea often use the same categorization of family-friendly programs presented in the American literature. In addition, many Korean companies have adopted wholesale already-existing programs in the U.S. However, we must be cautious in applying the same categorization to Korea because not all of the programs enacted are implemented and, even if implemented, there are often many restrictions in using them. For instance, Yoo et al. (2006) argue that among seven categories of family-friendly programs categorized by Galinsky et al. (1991)[3], 'Management Change' should be excluded in the Korean organizational context, because it is rare among Korean companies with such a short history of family-friendly programs. 'Management Change' is related to organizational practices used to establish family-friendly culture, such as sending work-family conflict professionals to the workplace and publishing a white book for family-friendly management (Galinsky et al. 1991).

The most frequently used leave programs in Korea are maternity leave, paternity leave, and childcare leave (parental leave). First, maternity leave allows eligible female workers to use up to 90 days paid job-protected leave before and after giving birth. It mandates that more than 45 days should be used after childbirth. This leave is regulated by the Labor Standards Act and excludes child adoption. It is eligible for all female employees who are about to give birth, regardless of their employment status, duration of employment, and coverage of employment insurance. Maternity leave allowances are paid at least 60 days for 100% of ordinary monthly wages per month by an employer, and if female employees are enrolled in an employment insurance program, the insurance pays an extra 30 days up to 1,350 USD. Second, paternity

3 Galinsky et al. (1991) present seven categories of family-friendly policies: flexible work arrangement, leaves, financial assistance, corporate giving/community service, dependent care services, work-family stress management, and management change.

leave programs allow male employees a three-day-leave when his wife gives birth and additional two days of unpaid leave.[4]

Third, according to the Act on Equal Employment and Support for Work-Family Reconciliation, childcare leave allows both mothers and fathers to leave their positions for up to one year to take care of their children[5] as long as the periods of leave do not overlap. Parents' right to use childcare leave expires when a child enters the second grade of elementary school or reaches the age of eight. During leave, workers are paid and their job is protected. Household income, spouse's employment status, and the birth order of their children are not taken into account for eligibility. However, an additional requirement states that employees must have been employed for more than one year before the starting day of childcare by an employer who is affiliated with the government's Employment Insurance Fund. Over the years, the amount of allowance per month has gradually increased: 300 USD in 2001-2003, 400 USD in 2004-2006, and 500 USD in 2007-2010. Since 2011, workers on childcare leave can get at least 500 USD or 40% of ordinary monthly wages per month (up to 1000 USD). The exact amount of the allowance varies by monthly wages and duration of the leave. Additionally, an incentive system is introduced to encourage the return of workers: 85% of the monthly allowance is paid during the childcare leave and the remaining 15% is paid to those who return to the former employer and continue working for at least six months.

4 Because only male employees are eligible for the paternity leave and this research deals with female employees, paternity leave is excluded from analysis.

5 Both parents of an adopted child are also eligible.

1.3 Brief History of Family-Friendly Laws in Korea

The history of family-friendly policies in Korea started with the enactment of the Labor Standards Act in 1953. It allowed female employees to use a sixty-day maternity (before and after delivery) and one-day menstrual leave (per month) and prohibited them from working in deleterious conditions. However, the actual use of family-friendly programs guaranteed by the Labor Standards Act was limited; the progressive policy was only effective on paper.

On top of the Labor Standards Act, the Equal Employment Opportunity Act (EEOA) was enacted in 1987, and required employers with at least five employees to provide family-friendly programs to female employees. However, the benefits of work-friendly programs in the EEOA were, in many cases, guaranteed in paper only. Governmental enforcement was weak and penalties issued to companies for not complying with the policies were minor.

In November 2001, the Korean government amended the two core laws that are related to family-friendly policies: The Labor Standards Act and Equal Employment Opportunity Act (renamed as the Act on Equal Employment and Support for Work-family Reconciliation (남녀고용평등과 일・가정 양립 지원에 관한 법률) in 2015). The amendment in 2001 adopted more progressive family-friendly programs and emphasized gender-neutral child-rearing practices and paternal contribution to childcare. For example, the length of leaves was extended (maternity leave increased from 60 days to 90 days) and employers were required to provide job-protected leave. Regardless of the size of the workplace, all workplaces are required to provide

paid childcare leave for both mothers and fathers, with each lasting for one year or less upon request.[6] Fathers are eligible for childcare leave regardless of their wives' employment status.

In addition, the right of male workers to use paternity leave when his wife gives birth has been expanded; they can use paid paternity leave for three days and an additional two days of unpaid leave since 2007. In this regard, if a Korean father fully uses legally guaranteed paid leave, the duration of his leave is 368 days (three days of paid paternity and 365 days of childcare leave), which is the longest among OECD countries (OECD 2015). Finally, despite being optional, some organizations have allowed flexible work arrangements to help employees balance paid work and family responsibility. Research suggests that these changes attempt to weaken traditional gender role ideologies that assume a gendered division of labor within the family (Albiston 2005; Kelly 2010) and gendered norms about ideal workers in Korea (Baek and Kelly 2014).

However, as Baek and Park (2013) argue, the amendment of family-related laws has not directly resulted in an increase in the use of family-friendly programs. This is due to weak enforcement by the Korean government, including small fines for nonobservance and a lack of the corporations' interest in solving work-family conflicts faced by workers. Relatively small fines for not providing childcare leave (around $5,000 US dollars) do not function as an effective financial sanction, since small fines are offset by profits gained when the employers do not allow their employees to use the program.

6 According to the Act on Equal Employment and Support for Work-family Reconciliation, there is no minimum duration of childcare leave. (Chapter Ⅲ-2 Article 19 (2) The duration of childcare leave shall be one year or less)

1. 4 Neo-institutionalism and Rational Choice Theory - Program Adoption and Decoupling

Companies' adoption rate of family-friendly programs varies by the characteristics of the programs. Programs with clear description within laws and funding through employment insurance are more widely adopted (e.g., maternity and childcare leave) than other programs. For example, Baek, Kelly and Jang (2012) analyzed the presence of four major work-family programs among Korean corporations using the 2005 Workplace Panel Survey (WPS) data (N = 1,905). The WPS is based on a nationally representative sample covering both private and public workplaces that have more than 30 employees and is conducted biannually. The adoption rate of each program by the sampled companies is as follows: paid childcare leave at 80.7%, paternity leave at 48.3%, childcare services (measured by the existence of a childcare center or childcare subsidy) at 17.6%, and flexible working hours (including a compressed workweek as shown in Table 1.1) at 14.2%. Using different waves of the same data (the 2009 Workplace Panel Survey data, N=1,619), Baek and Park (2013) show 64.2% of sampled companies adopt a paternity leave program. Min (2010) presents adoption rates of family-friendly policies using the second wave (2008) of the Korean Women Manager Panel (KWMP). The KWMP surveyed 1,174 female employees in 315 companies with more than 100 employees in four industries in which more women move up to the manager level (i.e., manufacturing, wholesale and retail, financial, and the service industry). Most companies in the sample have maternity leave (99.1%, among 315 companies) and sick leave (96.1%), whereas the adoption rates of flexible work arrangement (flextime, 14.2%; telecommuting, 9.0%) and childcare programs (family sick leave, 18.3%; provision of childcare center, 4.6%; childcare subsidy, 24.2%) are low.

How does the literature explain these patterns in Korean companies' adoption of family-friendly policies? Previous studies employ two organizational theories—neo-institutionalism and

rational choice theory—to explain adoption and practice of programs. According to neo-institutionalism, organizations conform to institutional pressures that require certain structures and policies in order to acquire legitimacy, even though certain structures and policies are not necessarily efficient (Mayer and Rowan 1983). In this regard, when work-family balance becomes a social norm, organizations conform to the norm to acquire legitimacy, which is now necessary for their survival. It argues several organizational characteristics are associated with the levels of normative pressures experienced by the companies to adopt family-friendly policies. For instance, large-sized companies and public organizations are exposed to higher levels of market pressure, and thus they are more likely to adopt the policies.

On the other hand, rational choice theory argues that an organization adopts family-friendly policies to reduce work-family conflicts among employees (Glass and Fujimoto 1995; Osterman 1995, Seyler et al. 1995) and to attract prospective workers who will be productive and make the most profit. When the expected benefits from adopting family-friendly programs to a company exceeds costs of adoption, companies are likely to adopt them. Company's adoption of family-friendly programs aims to maximize their profits by relieving employees' work-family conflict and hiring productive workers.

Another important issue in Korea is the discrepancy between adoption of the programs and their practice. The literature uses the concept of "decoupling" developed by researchers of neo-institutionalism to report discrepancies between adoption and practice observed among Korean companies (Baek and Kelly 2014; Baek and Park 2013; Koo 2009; Min 2010). Adopting family-friendly programs enables companies to signal that they have internalized market norms and as a result, gain legitimacy needed for their survival. However, because they mainly focus on acquiring legitimacy, they do not necessarily implement what they adopted (Meyer and Rowan

1977); they focus on retaining legitimacy by boasting their adoption to society, but are less interested in actual implementation of family-friendly programs. For instance, although the adoption rate of maternity leave program is 100% at the workplace level in the WPS 2005, the rate of its practice at the individual level is only 77.3% (Koo 2009).

1.5 Workplace Culture Theory

The literature argues that workplace culture in Korea has a significant effect on the use of family-friendly programs (Won 2005; Kim and An 2006). Despite companies' adoption and implementation of family-friendly programs, due to family-hostile workplace culture, a company's practice is often not connected to the adoption and implementation of programs. These previous studies assert that the ideal worker norm and the norms of male breadwinner and female homemaker contribute to the formation of workplace culture. Since the ideal worker norm emphasizes perpetual availability for work, no outside responsibility, and single-minded focus at work (Charlesworth and Baird 2007; Williams 2000), using family-friendly programs appears a violation of the ideal worker norm. Because the norms of male breadwinner and female homemaker accentuate gendered division of labor, female workers doing paid work and male workers using family-friendly programs breach the norms of male breadwinner and female homemaker. The Korean cultural tradition emphasizing gender division for paid and unpaid work strengthens the norms of male breadwinner and female homemaker (Baek and Kelly 2014; Won 2005; Kim and Park 2003). In a family-hostile workplace culture, workers who use family-friendly programs can become targets of penalties and discrimination (Acker 1990; Williams, Blair-Loy and Berdahl 2013).

As neo-institutionalism argues, workplace culture is associated with organizational characteristics. Some company characteristics, such as corporate size, demographic composition of organizations, the presence of labor unions, type of company, and the particular industry it is part of, lead to differences in the degree of family-friendliness of the workplace culture (Goodstein 1994; Osterman 1995; Mowday and Sutton 1993; Budd and Brey 2003; Baek, Kelly, and Jang 2012; Gorden, Edward, and Reich 1982). Companies with a more family-friendly culture are more likely to adopt and implement family-friendly programs, and as a result, their organizational behaviors that positively affect employees' perception of the ease of use of family-friendly programs and the low possibility of penalties as a result of using the programs, increase workers' likelihood to use family-friendly programs.

Chapter 2

Literature Review

2.1 The Use of Family-Friendly Programs

Although a high percentage of companies in the U.S. adopt family-friendly programs, most programs are used only moderately on average. For example, Blair-Loy and Wharton (2002) report that 41 percent of their sample is currently using or has used at least one family-friendly program (e.g. family-care programs, flexibility programs, and programs which cut back paid work hours).[7] Golden (2001) reports a smaller portion of employees use flexibility programs (i.e., changes in work start and end times) on a daily basis based on descriptive analysis of the 1996 Current Population Surveys (CPS) data.[8]

Furthermore, the literature commonly reports that there is variation even among programs within in the same category (flexibility programs). Not all family-friendly programs offered by companies are used to the same degree. Thompson, Beauvais, and Lyness (1999) survey 276 managers and professionals who are alumni of three graduate business programs at two Northeastern U.S. universities. They report that absence autonomy—i.e., the ability to take time off when needed and make it up another day—is (at 60%) the most frequently used among 16 specific work-family benefits. Second is flextime (45%) and working from home (27%) is third.

7 Blair-Loy and Wharton (2002) analyzed 519 financial professionals nested within 78 work groups which belong to the 'International Finance'.

8 The respondents are asked, "Do you have flexible work hours that allow you to vary or make changes in the time you begin and end work?"

Korean conditions with respect to the use of family-friendly programs are similar to conditions in the U.S., but it is even more the case that employees don't take advantage of them. In addition, the use of each program varies by the level of governmental supervision and clarity of programs description. Maternity leave and childcare leave mandated by the Labor Standards Law and the Act on Equal Employment and Support for Work-family Reconciliation respectively are most frequently used, while flexibility programs are used much less often. The findings of Min (2010) and Kim (2006) support variation in the use of programs. Using the 2008 Korean Women Manager Panel Survey, Min presents a majority of female managers take maternity leave after childbirth (95.3%). In contrast, flexibility programs are rarely used. Reduced-work-hour programs during child-rearing (i.e., an employee can work part-time – 15-30 hours per week – when his/her child is younger than eight-years-old or in second grade or below) is used by 9.4% of the eligible employees. Staggered office hours (flextime) program is used by 13.6% and telecommuting is used by 7.3% of the respondents. Similarly, Kim finds 49.6% of respondents use childcare leave, available after maternity leave, regardless of stability of employment (whether a regular worker or not) using the data of "The Reality of the Application of Parental Leave" surveyed in 2003 (N=972).

2.1.1 Individual Need Initiating the Use of Family-friendly Programs

Previous studies report that individual need influenced by family circumstance and gender drives the use of family-friendly programs (Blair-Loy and Wharton 2002; Fried 1998; Glass and Estes 1997; Golden 2001; Maume 2006; Sandberg 1999; Thompson, Beauvais, and Lyness 1999). In the family circumstance, workers residing with those who need extra care are likely to use them.

Parents with preschoolers or school age children, people living with the elderly, ill, and disabled are also more likely than others to use the programs. Moreover, being solely accountable for family responsibilities increases the need to use family-friendly policies. Employees in dual-income households and single parents are also more likely to use the programs than others. Married and cohabiting employees are more likely than singles to use them. In terms of gender, since women are more likely to be regarded as the main caregiver, they are more likely than men to take advantage of the programs (Hochschild and Machung 1989). The findings of Blair-Loy and Wharton (2002) support the pattern that gender (female) and whether one is living with those who need extra help are associated with the use of family-care programs.

2.1.2 Rational Choice Theory

According to rational choice theory, actors choose one of many options, which can maximize utility considering contextual constraints (Hechter and Kanazawa 1997). In spite of the cost associated with allowing employees to use family-friendly programs, organizations that want to maximize their profits tend to employ or keep workers with a higher level of human capital who can contribute to an increase in profits. Therefore, in order to attract them, companies are likely to offer a variety of family-friendly programs to them as an HR strategy. Previous studies report that an individual's education, position in a corporation (rank), type of work (occupation), years of tenure, and level of wages impact company's provision of family-friendly programs (Barrow 1999; Davis and Kalleberg 2006; Desai and Waite 1991; Glass and Estes 1997).

Higher level of human capital contributes its holders' use of family-friendly programs in two aspects. On the one hand, a higher level of human capital guarantees the holders greater

power to negotiate with employers and lowers the possibility of being replaced (Davis and Kalleberg 2006; Osterman 1995; Baek, Kelly, and Jang 2012; Glass and Fujimoto 1995). Scarcity of employees with greater human capital, which contribute to a company's profit, can be used as leverage for improving their working conditions. Thanks to this bargaining power, an employee with a higher level of human capital is more likely to access the programs and to utilize them. On top of this, the characteristics of their job – being flexible and autonomous – allow them to use family-friendly programs more often. For example, U.S. employees whose occupations involve "transportable knowledge- or information-based tasks" more frequently use family-friendly programs than others (Weeden 2005).

2.1.3 Neo-institutionalism

Neo-institutionalists argue that there is another way that organizations can survive in this environment. They assert that conforming to a social norm by adopting certain structures and policies allows them to acquire legitimacy, even though they are sometimes economically inefficient (Mayer and Rowan 1983). The issue of work-family balance emerged after certain social phenomena appeared in economically developed countries: empowerment of women by increased labor participation and education and low fertility (see Figure 1.1 and 1.2). In addition, recognition of severity of work-family conflict across governments and professionals drew the attention of the public, and their reaction to the issue of work-family conflict and low fertility made 'work-family balance' a question of social norms. With coercive (government) and normative (professionals) pressure to organizations (DiMaggio and Powell 1983), organizations began to respond to the norm of work-family balance. Since legislation of acts related to work-

family balance led to the institutionalization of the protection of parenthood, work-family balance became a social norm in Korea. Korean companies are exposed to institutional pressure originating from the enactment of this legislation and have to respond to the institutional pressure of the social norm of work-family balance. Consequently, many Korean companies have adopted and implemented a variety of family-friendly programs, and their employees benefit from their employers' practice.

Neo-institutionalism also argues that the level of institutional pressure on an organization varies by the company's characteristics (Baek and Kelly 2014), and the interaction between institutional pressures and the responsiveness of an organization leads to differences in the level of internalization of the social norm. A company facing a higher level of institutional pressure is more likely to respond to institutional pressure – adopting and implementing more family-friendly programs. Employees working at a company facing more institutional pressure and adopting more family-friendly programs are more likely to feel comfortable using family-friendly programs. In other words, macro organizational characteristics may not have a direct impact on employees' usage of family-friendly programs; rather, they could indirectly affect worker's use via their perception of the easiness of using the programs and potential risks of use.

Neo-institutionalists research how macro characteristics of a company influence employees' use of family-friendly programs and find that several features of organizations impact workers' use of family-friendly programs: corporate size (Goodstein 1994; Osterman 1995), demographic composition of organizations (Mowday and Sutton 1993), the presence of labor unions (Budd and Brey 2003), type of company (Baek, Kelly, and Jang 2012), and the particular industry (Gorden, Edward, and Reich 1982).

Corporate size affects employees' use of family-friendly programs depending on two factors: an organization's resources and institutional pressure (Galinsky and Bond 20098; Comfort, Johnson and Wallace 2003; Goodstein 1994; Ostermann 1995). Neo-institutionalism argues that the greater visibility of large organizations draws the attention of the organizational environment – especially the market, and they tend to conform to institutional pressures of the market (Kim, Park, and Lee 2009). In other words, with higher levels of visibility, larger size companies are more likely to adopt family-friendly programs and provide them for their employees. Consequently, increased accessibility to family-friendly programs is connected to employees' usage of family-friendly programs. The finding of Baek and Park (2013) that larger-sized companies are more likely to adopt and implement paternity leave supports the idea that working at large-sized companies positively affects the use of family-friendly programs.

In terms of demographic composition, previous studies report that the proportion of women on boards of directors and the gender of immediate supervisors impacts employees' use of family-friendly programs. According to organizational institutionalism, a board of directors is a conduit that transmits a social norm into a company (Baek, Kelly, and Jang 2012), and with their power in the company, they contribute to creating a family-friendly workplace environment by advocating adoption of family-friendly programs. In this regard, an organization with a larger proportion of female directors among board members is more sensitive to the social norm of work-family balance and will more actively adopt family-friendly programs and provide higher levels of accessibility to the programs (Goodstein 1994; Osterman 1995; Kelly 2003; Koo 2009). Furthermore, an immediate supervisor's gender can impact subordinates' use of family-friendly programs. In cases where an immediate supervisor is female, subordinates more often use family-friendly programs (Golden 2001; Blair-Loy and Wharton 2002), because similar

experiences of work-family conflict that the subordinates experience raise empathy of the female supervisor and enable her to be supportive of work-family balance (Kwon and Kwon 2013). With higher levels of managerial support for work-family balance and a lack of negative consequences, more employees use family-friendly programs (Thompson, Beauvais, and Lyness 1999).

The literature reports mixed effects of labor unions on family-friendly programs. Given the general aims of labor unions, the presence of a union is likely to contribute to the institutionalization of family-friendly policies and their implementation (Budd and Brey 2003; Lee 2010). In contrast, other studies argue that labor unions regard the issue of work-family balance as a peripheral issue (Gerstel and Clawson 2001).

The type of company influences employees' usage of family-friendly programs in differences of adoption and implementation. Organizational institutionalism focuses on the effect of levels of institutional pressure associated with regulation, and connectedness to foreign managerial practices. On the one hand, according to Frumkin and Galaskiewicz (2004), public corporations are more sensitive to social norms because they are exposed to direct regulation by the government. Moreover, since their organizational practices are often investigated by the government, they are more open to adopting family-friendly programs and implementing them. On the other hand, for foreign and joint venture companies, their connection to foreign managerial practices affects organizational behaviors (DiMaggio and Powell 1983; Mizruchi and Stearns 2001). Since diffusion of family-friendly programs started first in western companies, and they are part of a set of internationally desirable norms for employees, foreign and joint venture companies that have a foreign network which is a conduit for family-friendly workplace norms are likely to adopt family-friendly programs. This norm sensitiveness associated with

companies' adoption and implementation of family-friendly programs increases employees' accessibility to family-friendly programs. The findings of the previous studies commonly report companies in the public sector and with foreign connection more often adopting family-friendly programs in Korea (Baek, Kelly, and Jang 2012; Back and Kelly 2014; Koo 2009).

Differences between industries also influence companies' adoption and employees' usage of family-friendly programs. The literature focuses on the effects of the manufacturing industry in the U.S. on family-friendly programs and reports manufacturing companies are more likely to offer and implement family-friendly programs (Gordon, Edward, and Reich 1982). However, given that Korean companies in the manufacturing industry are male-dominant, they are less likely to adopt family-friendly programs (Baek, Kelly 2014; Baek, Kelly, and Jang 2012).

2.1.4 Workplace Culture Theory

The literature argues workplace culture significantly affects employees' use of family-friendly programs (Cech and Blair-Loy 2014; Williams 2010; Glass 2004). Workplace culture is influenced in a significant way by two norms (the norm of ideal worker and the norms of male breadwinner and female homemaker) and can function as either an obstruction or of a facilitator to using family-friendly programs. When a worker utilizes family-friendly programs, he/she violates these two norms, and under family-hostile workplace culture, the user may be risking imposed by the employers (Acker 1990; Williams, Blair-Loy, and Berdahl 2013). In addition, a company with family-hostile workplace culture is less likely to adopt and implement family-friendly programs, in which case employees working at a company with family-hostile workplace culture are less likely to have access to them. In contrast, working in a family-friendly

environment that guarantees workers' access to family-friendly programs increases the likelihood of their use.

Working at a company with a more family-friendly workplace culture positively affects a female manager's use of programs by increasing the perception of the ease of use of programs and the level of risk of penalties for use. Neo-institutionalism argues that a company's response to institutional pressure, which varies by the characteristics of each organization, plays a significant role in determining the level of family-friendliness of workplace culture. In particular, due to the higher visibility of large companies, they tend to conform to family-friendly norms by actively adopting more family-friendly programs, and thus employees in these companies are more likely to use family-friendly programs (Blair-Loy and Wharton 2004). The presence of female board members also positively affects workers' use of family-friendly programs, thanks to female board members' role in creating more family-friendly workplace culture (Stainback and Kwon 2012; Galinsky and Bond 1998; Konrad and Mangel 2000). The normative pressure of a network with mother companies in foreign countries and coercive pressure from government contribute to the formation of family-friendly workplace culture and positively affect employees' use of family-friendly programs in foreign companies and joint venture and public companies respectively (Baek, Kelly, and Jang 2012).

2.2 The Influence of the Use of Family-Friendly Programs on Careers

A few papers find that family-friendly policies do not significantly alleviate work-family conflict and can even result in a negative influence on career development when employees return to work. This result is contrary to the purported aim of family-friendly programs and an example of

unanticipated consequences. U.S. - and Europe-based literature reveals that penalties for using family-friendly programs are likely to be related to changes in wages and position (e.g., promotion, job degradation, or even dismissal) for women.

2.2.1 The Use of Family-Friendly Programs and Impact on Wage Growth

Previous studies on the association between women's labor market leave and its effect on wages report similar findings. They report that (1) time off of the labor market can have both short and long-term negative effects on female workers' wages, and (2) factors that cause wage penalties for the use of family-friendly programs vary by individual and employer contexts. The size of the negative effect on wage growth varies by the type of programs used, the length of use, employees' position in an organization, and turnover experience.

First, the literature consistently reports that using family-friendly programs is associated with wage penalties in the short and long-term. Baum (2002) examines the effect of maternity leave on women's wages using the National Longitudinal Survey of Youth (NLSY), 1979-1994. He shows work interruptions to give birth negatively affecting female workers' wages by 2-3 percent per year of leave. By tracking a Midwestern cohort of employed women for 7 years after they give birth, Glass (2004) finds use of flexibility programs negatively affects female workers' wage growth. Ruhm (1998), using longitudinal data from nine European countries, 1969-1993, shows that taking a long absence (off a job longer than nine months) decreases female workers' hourly wages by three percent on average. Anderson, Binder and Krause (2002), using the National Longitudinal Survey of Labor Market Experience of Young Women (NLSYW), 1968-1998, reveal that being away from the workplace for maternity leave , results in a 15 percent

wage gap between college graduate white mothers and non-mothers in the U.S. Jacobsen and Levin (1995), using the 1984 Survey of Income and Program Participation, find that, even 20 years after using leave programs, the long-term negative effect of leave on female workers' earnings persists. Wage difference between users and non-users continues to grow; even a one-time leave causes an unrecoverable wage disadvantage.

Second, there are variations in wage penalties for the use of family-friendly programs based on individual and organizational contexts; the negative impact of the use of family-friendly programs on users' wage growth is affected by the type of program used, duration of use, and employees' position in an organization (Glass 2004). Types of programs used and the duration of use lead to different career consequences (Misra, Budig, and Boeckmann 2011). Using the Luxembourg Income Study for 21 countries, they find types of programs used and the duration of use lead to different career consequences. While "work-facilitating programs", such as childcare, positively affect mothers' employment and wages, "work-reducing programs", such as long parental leave, negatively affect female workers' careers. In contrast, using work-reducing programs for a moderate length of time has a positive effect on their career. The interaction between the used program and the duration of use leads to different career effects. Furthermore, even between programs in the single category of flexibility programs, the negative effect of use varies (Glass 2004). Although all flexibility programs (schedule flexibility, telecommuting, reduced work hours, and childcare assistance) are associated with wage penalties, schedule flexibility and childcare assistance often result in less severe penalties (Glass 2004).

The level of wage penalty for the use of family-friendly programs varies by an individual's occupation in an organization. For managerial and professional workers, the longer employees use the programs, the more heavily their wage growth is penalized (Glass 2004).

2.2.2 The Use of Family-friendly Programs and the Impact on Promotions

Another area of possible career penalties is related to job promotions. Similar to findings in the literature about wage penalties, the literature finds that the use of family-friendly programs can negatively affect an individual's possibility for promotion. They also find that the magnitude of negative effects of long-term leave programs on users' promotions varies by national context.

First, the use of family-friendly programs can negatively affect an individual's possibilities for promotion. From a comparative perspective, Aisenbrey, Evertsson, and Grunow (2009) examine the effect of maternity leave on job mobility within an organization and job stability across three countries (U.S., Germany and Sweden). They find that using long-term maternity leave negatively influences mothers' short-term career consequences. Grunow, Hofmeister and Buchholz (2006) compare the effect of career interruptions in the U.S. and West Germany on occupational mobility among cohorts from the 1940s and 1950s, using the German Life History Study (GLH) and the U.S. National Longitudinal Survey of Young Women (NLSYW). They reveal that job interruptions are associated with downward occupational mobility.

Second, the literature shows that the length of programs used and national context result in variations in penalty on promotion. Evertsson and Duvander (2011) use the Swedish Level of Living Survey (LNU) covering 1974-2000, and find that women who use maternity leave for

more than 15 months are likely to experience greater difficulties being promoted to prestigious jobs than those who use maternity leave for less than 15 months.

Aisenbrey, Evertsson, and Grunow (2009) compare three countries (U.S., Germany, and Sweden) and find that, in the U.S., using maternity leave leads to career-long penalties, but long-term leave results in worse consequences; it increases the risk of job position degradation and reduces the chances of an upward move after returning to work. In Germany, long-term leave can destabilize the users' career and the length of the leave is associated with the possibility of career mobility (either moving up or down). Even in Sweden, they find that using long-term maternity leave negatively affects chances for upward mobility. They argue the degree of penalty to promotion for using short-term childbirth leave varies by welfare regime, categorized by the quality and quantity of each country's social policies. In pro-family welfare states, maternity leave users are less likely to be penalized and the extent of the penalties might be less than other countries.

2.2.3 Factors Causing Career Penalty for the Use of Family-Friendly Programs

Why are female workers exposed to risks of career penalties when they use family-friendly programs, especially long-term leave? First, it is possible that long-term leave is costly for employers, because not only do they need to find alternate workers to fulfill the duties of those on leave, but also the cost of searching for and training them is high. The cost of replacement workers and their job training negatively affects the returnee's wages. These costs negatively affect users' wages (Aisenbrey, Evertsson, and Grunow 2009; Ruhm 1998).

Second, human capital depreciation occurs while users are out of the labor market, which is regarded as a cost of leave to female workers (Mincer and Polacheck 1974; Ruhm 1998). The longer female workers are out of the labor market, the more their human capital depreciates; subsequently a lower wage will be given to the returnees.

Lastly, organizational culture and supervisors' attitudes affect career penalties (Schwartz 1996; Glass 2004). In cases where employers or supervisors have a biased view of female workers, statistical discrimination hinders female workers' career development when they use family-friendly programs. In these cases, employers will refrain from hiring female workers for important positions, because of a prejudice that female employees are more likely to use family-friendly programs or quit their jobs. Therefore, not only is employing female workers less preferable in the first place, but chances for women of being promoted to managerial positions are limited even after being hired (Mandel and Shalev 2006).

Additionally, Glass (2004) highlights the role of rigid workplace norms in wage penalties (for managerial and professional positions). She argues that companies require long working hours and continuous availability from managerial and professional workers. Although both managerial and professional workers enjoy higher levels of autonomy at work, they are exposed to a greater risk of penalties, because employers expect managerial and professional workers to conform to the norm of the ideal worker who is always available, and has no outside responsibilities (e.g., family life), and prioritizes work above all else.

2.3 Family-Friendly Programs and Their Impacts on Fertility

2.3.1 General Effects of Family-Friendly Programs on Fertility

Previous studies commonly report that there is a positive relationship between family-friendly programs and fertility-related outcomes. European countries that faced a second demographic transition earlier than the rest of the world have adopted many family-friendly policies since the 1960s and have analyzed the impact of the policies on fertility. Implementing family-friendly policies in low-fertility countries plays some role in increasing fertility rates (see Gauthier 2007; Björklund, 2006; Rønsen and Skrede, 2006; Andersson, 2008, for review). The effects of family-friendly policies on fertility rates vary by country and the characteristics of the program.

Nevertheless, in general, previous studies report a positive association between family-friendly policies and fertility. For example, the more generous or flexible the family-friendly programs, the greater the effect on fertility. However, only a limited number of studies investigate the effect of specific family-friendly programs on fertility; since most studies employ European data, especially Northern and Western Europe, there is the limitation of generalizing from the context of other countries. In addition, they also report variations in fertility-variables by looking at other factors: used programs, birth order (parity), age, perception of ease of accessibility, and mothers' employment status.

2.3.2 Reducing Burdens and Fertility-Boosting Effects of Family-Friendly Programs

Family-friendly programs reducing a variety of burdens on mothers have a fertility-boosting effect across countries. The literature reports these programs mitigate physical, psychological, and financial burdens on mothers. First, maternity leave aims to protect female workers and the health of unborn/newborn children by allowing female employees to leave the workplace during pre- and post-natal periods. Studies examining the effect of maternity leave on fertility and

commonly find a positive relationship between maternity leave and fertility outcomes across countries. Moreover, the availability of the effect of maternity leave varies by women's age, characteristics of maternity leave (i.e., whether paid or unpaid), and the order and timing of birth (see Cannonier 2014; Risse 2006).

In the U.S., although maternity leave is usually unpaid, its eligibility and use positively affects fertility-related outcomes. Cannonier (2014) compares birth hazard profiles between women who became eligible for job-protected maternity leave for up to 12 weeks and a non-eligible group and finds eligibility for maternity leave increases the probability of having a first and second birth for eligible women by about 1.5 and 0.6 % respectively in a year. Female employees who are eligible for maternity leave had their first birth a year earlier and the second birth about 8.5 months earlier than their counterparts. Averett and Whittington (2001) find that maternity leave use has a positive effect on the probability of a second or additional birth for employed women with at least one child. They also show that the fertility-boosting effect of taking maternity leave on the second birth is universal, regardless of race; for employed white women with one child, the use of maternity leave increases the probability of a second birth by around 50%. The probability for employed black women increases by 51%.

The fertility-boosting effect of eligibility for and use of maternity leave also appears in other countries. In Australia, the availability of maternity leave significantly increases pregnancy rates, and the implementation of national paid maternity leave leads Australian women to have children earlier (Risse 2006). Examining the tumultuous period when the U.S.S.R. collapsed and the regime changed (1985-2000) in Russia, Gerber and Perelli-Harris (2012) reveal that women who used unpaid maternity leave (up to three years and job-protected) for the first child were more likely to get pregnant again as the rate of second conceptions significantly increased. With

comparison of family policy expenditure on fertility in Western Europe, Kalwij (2010) shows that increase in maternity and childcare leave-related expenditure positively affects fertility. Between 1980 and 2003, a 10% increased expenditure in maternity and childcare leave lead to a decline in childless women aged 36-40 by about 3.2%. Extended maternity and childcare leave resulted in women having children younger, and increasing the number of children that a woman has.

Among Northern European countries, Rønsen (2004) shows that extended maternity leave positively affected fertility in Norway and Finland, and its effect is larger for higher order births in Finland. Duvander, Lappegård, and Andersson (2010) reveal that the use of childcare leave is closely related to additional births in Sweden and Norway. For Norwegian women with two children, it also positively affects the likelihood of a birth of a third child.

In Korea, Kim (2017) finds that female employees who are eligible for maternity leave are more likely to have a first (35% higher in fertility hazard odds) and second child (42% higher in fertility hazard odds) among women aged 20 to 39, compared to those who are ineligible for maternity leave. Not only does eligibility for maternity leave positively affect childbirth regardless of parity, but there is also has a larger positive effect on the likelihood of a second birth. Kim (2017) shows that childbearing age employed married women who are eligible for maternity leave, compared to their non-eligible counterparts, are more likely to have a child by 3%.

Childcare leave is usually taken after maternity leave and aims to help parents to focus on their children and balance work and family. Because paid childcare leave with the right to return to the original place of work can decrease the opportunity cost of children while employees are

off the labor market, mothers can use it without fear of depreciation of the value of human capital, and in turn this can increase fertility rates (Lee, Ogawa, and Matsukura 2009). The literature commonly presents the positive effect of childcare leave on fertility (e.g., Averrett and Whittington 2001; Büttner and Lutz 1990; Lalive and & Zweimüller 2005; Winegarden and Bracy 1995).

In the Japanese context, Lee, Ogawa and Matsukura (2009) examine how childcare leave affects Japanese married women's fertility, using the 2007 National Survey on Work and Family. The sample includes married women aged 20-49 with at least one child. They find that using childcare leave positively affects Japanese employed women's fertility, especially parity two, by six percent. Since the use of childcare leave does not harm employed women's years of job tenure with the same employer or predicted wage growth, it decreases opportunity costs of having children; temporarily leaving the labor market does not negatively affect employed women's human capital.

In Austria, a series of studies shows that the extension of childcare leave positively affects fertility, especially the likelihood of second and third children. The Austrian government increased the maximum duration of childcare leave from one year to two years in 1990. Lalive and Zweimuller (2005) find that for mothers who benefit from the new policy, the probability of having an additional child increased significantly within three (4.9 percentage points) and ten years (3.9 percentage points) after having a first child. They argue the revision of childcare programs has an impact on the timing of childbearing and the number of children had. Stastna and Sobotka (2009) explore the effect of multiple changes in childcare leave (1990, 1996, and 2002) on the likelihood of the birth of second and third children of employed Austrian women. They find that the 1990 change positively affected the likelihood of having an additional child;

the proportion of women who already have one or two children likely to have the second or third child within 26 months increases. Prskawetz and Zagagla (2005) also report the 1990 revision decreased the childbirth gap between first and second children.

The provision of childcare service plays an important role in employees' work-family balance, and its quality and accessibility have a great influence on fertility. Without access to high quality childcare service, many couples are likely to give up on having a child or hesitate to have children. Many countries provide public childcare services for parents with infants and toddlers, and previous studies commonly find that public childcare service positively affects fertility (see Del Boca 2002; Rindfuss et al. 2010; Baizán 2009). Private childcare also has a positive effect on childbirth (Hank and Kreyenfeld 2003 in Germany; Lehrer and Kawasaki 1985 in the U.S.).

Despite careful examination of the findings of past research, it is hard to find studies dealing with the effect of company-affiliated childcare facilities on fertility, an important independent variable. This is because the system of childcare varies by country. Western countries implement policies where the state is the main actor in providing childcare services, while the Korean government has encouraged companies to establish company-affiliated childcare facilities for their employees. The Korean government regards companies as one of the main providers of childcare. The differences in welfare systems are mainly in how much the state is responsible for work-family balance difference.

Cash benefits for childcare as a form of subsidy or allowance (e.g., childcare and education subsidies for infants and toddlers) contribute to the recovery of fertility rates, because they can directly decrease the cost of child-rearing. Luci-Greulich and Thévenon (2013) reveal

that financial support and childcare services that are provided during childhood more positively affect the parental choice to have children, as compared to the provision of benefits (e.g., paid leave) available at the time of childbirth in 18 OECD member countries (1982-2007). González (2013), in Spain, shows the childbirth subsidy system positively affects the number of monthly pregnancies, but negatively affects the monthly abortion rate. Drago et al. (2011) find the child allowance (irrespective of birth order, parental income; excluding high-income families from the benefit from 2009) positively affects birth intention, but that positive effects did not appear right after the adoption of the child allowance program in Australia. According to Slonimczyk and Yurko (2014), the generous benefits of the Russian maternity capital program (approximately 11,000 USD of one-time support) positively affect long-term fertility in Russian women (0.15 children per woman).

In addition to the positive effect of cash benefits on fertility outcomes, the literature also reports that the effect of childcare subsidies on fertility varies by the order of birth and fertility timing. In Norway, Lappegård (2010) finds the introduction of the childcare cash benefits has a positive effect on numbers of second births when the parents belong to the first group of beneficiaries. In the same cultural context, Assave and Lappegård (2009) reveal childcare and education subsidies for infants and toddler shortened birth intervals between first and second children. In addition, the cash benefits positively affected the likelihood of the birth of a third child. Adoption of distinctive cash benefit (a baby bonus) in Quebec, Canada led to an increase in births of second children (Milligan 2002).

The effect of childcare subsidies on fertility also varies by its type and form. Haan and Wrohlich (2011) reveal that, in Germany, childcare subsidies for employed women of all age groups do not affect fertility, but positively affects fertility for highly educated women, or

women with no children. In contrast, they find that childcare subsidy paid regardless of employment—a universal childcare subsidy—has a positive effect on fertility for females of all ages. Cohen, Dehejia, and Romanov (2013) find changes in the amount of benefits of child support subsidies has effected changes in birth rates in Israel. From 1959-2002, the amount given in subsidies increased, but in 2003 the Israeli government significantly reduced the amount. The fluctuation of the amount of the subsidies is closely correlated with birthrates, but high-income families were less affected.

Little research on the effect of flexibility programs on fertility has been done, compared to the number of studies examining the effects of leave programs and financial support on fertility. Ariza, Rica, and Ugidos (2003) examine how the availability of part-time work affects fertility decisions in eleven European countries and find for the sample of employed women, the availability of a part-time schedule positively affected the decision to have a child in Belgium, Germany, Ireland, Italy, and the Netherlands. They explain that variations in work-family policies and labor market environments lead to differences in fertility decisions. Engelhardt (2004) finds that 'flexible working hours' positively affects the fertility intention but the size of the effect varies depending on birth parity. When 'flexible working hours' programs are improved, the respondents are more willing to have a child sooner and to have more children.

2.4 Workplace Culture and Its Impact on Family-Friendly Programs

The literature on the effect of workplace culture on employees' behavior reports that it has a significant effect on the use of family-friendly programs, wage growth and promotion after using long-term leave programs, and fertility intention (see Cech and Blair-Loy 2014; Williams 2010;

Won 2005; Kim and An 2016; Glass 2004). However, despite companies' adoption and implementation of family-friendly programs, if employees do not perceive their workplace culture as family-friendly, they tend not to use family-friendly programs, due to possible career penalties, and subsequently hesitate to have or give up altogether the idea of having-children. Employees' perception of the family-friendliness of an organization, rather than a company's practice, plays a more important role in employees' behavior, because organizational context (i.e., workplace culture) "not only shapes preferences and perceptions directly but also may shape people's willingness and capacity to act on them (Blair-Loy and Wharton 2002:817).

According to Denison (1996), workplace culture refers to a deep structure rooted in company members' (both employers and employees) values, beliefs, and assumptions, and it fundamentally affects behaviors of the company and its members. It also persists relatively in the long-term and distinguishes one company from another by presenting the entire characteristics of the company. Given these descriptions, family-friendly workplace culture refers to assumptions, values, beliefs, and expectations that a company supports and emphasizes employees' work-family balance (Thompson, Beauvais, Lyness 1999). Guthrie and Roth (1999) argue that the institutional environment influenced by a nation's laws contributes to construction and formation of social cultures and norms. In Korea, the enactment of the Act on Equal Employment and Support for Work-Family Reconciliation likely has affected an influence on the institutional environment that directly affects workplace culture. In addition, Korean cultural traditions (e.g.., a strong tradition of patriarchy) may have influenced the formation of family-hostile workplace cultures. It emphasizes gender division between paid (male's breadwinner role) and unpaid work (female's caregiver role) and fidelity to the organization which supports one's life like a father (Kim and Park 2003).

The literature argues two pervasive norms in the workplace contribute to creating workplace culture: the ideal worker norm and the norms of male breadwinner and female homemaker. On the one hand, the ideal worker norm stipulates that an employee should be a person of perpetually available for work, with no outside responsibilities or interests, who rarely gets sick, prioritizes work above all else, and with single-minded focus at work (Charlesworth and Baird 2007; Williams 2000). In other words, the ideal worker is a person who is free from family responsibility and can devote all of his/her life to the company. This is taken for granted, embedded in the work culture, although invisible. Many employers operate companies on the basis of an ideal worker norm (Charlesworth and Baird 2007) and expect their employees to fully observe it. Blair-Loy (2003: 1-2) argues that employers expect their employees to be armed with the "cultural ideology that defines the career as a calling or vocation that deserves single-minded allegiance and gives meaning and purpose to life."

These characteristics of the ideal worker norm are imposed on workers of both genders (Blair-Loy 2003). Since the norm does not distinguish employees by gender, female workers are subject of this 'defeminized' ideal worker norm and are treated the same as male employees. Through internalization of the ideal worker norm, which may not be explicit but is nevertheless strong, female workers put themselves in the gray area between a defeminized ideal worker and a mother (Kim and An 2016).

On the other hand, the society still distinguishes between men's and women's roles, and requires women to observe the male-breadwinner female-homemaker norm. Since industrialization, as workplace and home became separated, gender division of labor using the male-breadwinner female-homemaker norm appeared (Davies and Frink 2014; Williams 2010). It argues men should take responsibility for making money though work to support the family,

and women should take responsibility for household chores and childcare. In addition, traditional gender norms of Confucianism and the government's welfare system reinforce the norm of male-breadwinner and female-homemaker in Korea (Baek and Kelly 2014). Consequently Korean female employees are under the influence of strong norms of male breadwinner and female homemaker. Regardless of their employment status, women are often regarded as the primary caregiver for family members and their income is regarded as secondary or supplemental to their husbands' income (Won 2005). Although they work in the same workplace with male workers, they are treated as second-class citizens in the organization (Blair-Loy 2003) and relegated to the periphery in the workplace.

The reality of Korean women's life circumstances also reinforces their full-time homemaker role. The childcare system is scheduled on the assumption that mothers are full-time housewives, and it aggravates work-family conflicts and makes many mothers quit work. In particular, preschools offer a '10am to 4pm' schedule, which is discrepant with employed mothers' working time. Not having any alternative care-giving options for preschoolers, working mothers have to use a certain amount of leave time provided by family-friendly programs (such as long-term leave and flexibility programs) for childcare. This situation leads working mothers to violate the ideal worker norm, and thereby makes them employers' targets for penalization. In contrast, since the male-breadwinner and female-homemaker model assumes that male workers should be good providers by bringing income home, "gender pressures on men to be good fathers propel them away from home, toward work (Williams 2010: 32)", while they are free from family responsibility. In other words, the burden of unpaid labor at home falls to women, regardless of their employment status.

Under the influence of these two workplace norms, workers who use family-friendly programs (i.e., either on leave from work or working less than full time with flexibility programs) to care for family members are penalized and/or discriminated against (Acker 1990; Williams, Blair-Loy and Berdahl 2013). The employers, supervisors, and even colleagues think that users are less committed to their organizations (Cech and Blair-Loy 2014), and thereby female managers' use of family-friendly programs reinforces statistical discrimination.

In examining these questions, the literature offers a concept: flexibility stigma (Williams, Blair-Loy, and Berdahl 2013; Stone 2013). The term is used to explain penalties levied on family-friendly program users, who seem to violate the ideal worker norm to meet their personal responsibilities (Williams 2000). The ideal worker norm does not allow workers to be distracted by other things, such as the family, and emphasizes instead a single-minded focus at work. Hence, those who request the use of family-friendly programs to take care of family and personal obligations are likely to face flexibility stigma, which will negatively affect female managers' career development (Cech and Blair-Loy 2014; Williams, Blair-Loy and Berdahl 2013).

Chapter 3

Data and Methods

3.1 Data: The Korean Women Manager Panel

This research uses data from five waves of the Korean Women Manager Panel (KWMP) to examine the factors affecting the use of a family-friendly program and the consequences of its use for the lives of Korean female managers. The KWMP has been conducted bi-annually since 2007 and as of early 2018, six waves of the survey were completed (2007, 2008, 2010, 2012, 2014, and 2016) and data from the first five waves were made publicly available. The KWMP targets female managers, from assistant managers to higher-level managers, in companies with more than 100 employees within four industries (manufacturing, wholesale/retail, financial, and business services). It also asked questions to human resource representatives of the companies, so the survey data includes the characteristics of the corporations as well as the individuals. To collect information on female managers and the companies they belong to, the KWMP employs the stratified sampling method. The KWMP sorted Korean companies into eight strata by size and industry. They contacted 769 companies, of which 341 companies were willing to participate in the KWMP, and then randomly sampled female managers from the sampled companies as the number of companies designated to each strata.

In the fourth wave, they supplemented the sample by including companies from industries that were excluded from the previous waves. The survey had excluded several industries, in which majority of companies are small-sized or workers are self-employed (e.g.,

transportation, public health, welfare, and educational service). In the end, 2,361 female managers from 341 companies were selected in the first wave. To minimize sample attrition, the surveyors traced some of the respondents who dropped out, either due to turnover, quitting a job, or for other reasons. For a respondent moving to a new workplace, her new HR manager was also surveyed about the company. Furthermore, by replacing individuals who dropped out with new individuals of the same characteristics (referred to as an "alternative sample") and replenishing the numbers of respondents for certain waves, the KWMP maintained a representative pool of female managers. For example, since the number of respondents from the original sample had significantly decreased (from 2,415 in the first wave to 1,096 in the fourth wave), the KWMP designers added an alternative sample of 137 people and a supplementary sample of 918 individuals to the original sample for wave four.

The KWMP aims to collect basic data that can support the adoption of policies designed to help women develop their professional careers. To achieve this aim, it surveys for factors on multiple levels: individual, contextual, and organizational. First, individual factors include socio-demographic and familial backgrounds, attitudes and perceptions, and an individual's efforts for career development. The survey asks female managers about their working conditions, career development, career path to manager-level positions, and work-family balance. In particular, it asks about their family-friendly program use, experience of gender discrimination at work, history of pregnancy and childbirth, work history (e.g. promotions and turnover), feelings about organizational culture, job-related stress, and their socio-demographic variables. Second, to assess the contextual factors, the survey asked female managers about their interactions with other family members (i.e. spouse, children, and other dependents). Surveying female managers' individual and familial characteristics enables them to extensively analyze the factors affecting

career development. Lastly, to gather information on organizational factors, the survey asked HR persons of the company about tangible organizational characteristics and organizational culture/environment. Representatives of the Human Resource departments offer information on organizational culture, adoption of family-friendly programs, and demographic factors of the corporation.

To take advantage of the strengths of panel data, this research merged the data from the five waves of the KWMP. Figure 3.1 shows the structure of the five waves of the KWMP using the 'xtdes' command of STATA. "n" refers to the number of individuals (3,429), and "T" refers to the number of waves in the panel data (5). "Distribution of T_i" presents that the merged data for this research is unbalanced, which means that some subjects do not appear in all five waves. By sorting 3,429 panel subjects in ascending order of the number of waves in which they were interviewed (i.e., T), the T_i distribution shows that the subject located at the median appears three times during the panel survey. In a table (bottom side) in Figure 3.1, the first row shows that 751 subjects appear in the first three consecutive waves (2007, 2008, and 2010); the third row shows that 710 subjects are observed in all five waves of the KWMP. Due to the attrition issue, the pattern of appearance varies among subjects.

Figure 3.1 The Data Structure of This Research: Merged Dataset of the Five Waves of the KWMP

```
     pid:  1401, 1402, ..., 800243                          n =       3429
    wave:  1, 2, ..., 5                                     T =          5
           Delta(wave) = 1 unit
           Span(wave)  = 5 periods
           (pid*wave uniquely identifies each observation)

Distribution of T_i:   min      5%     25%       50%       75%     95%     max
                         1       1       2         3         4       5       5

    Freq.  Percent    Cum. |  Pattern
-------------------------+-------------
      751     21.90   21.90 |  111..
      712     20.76   42.67 |  ...11
      710     20.71   63.37 |  11111
      435     12.69   76.06 |  1.1..
      259      7.55   83.61 |  1111.
      206      6.01   89.62 |  ...1.
       96      2.80   92.42 |  ....1
       95      2.77   95.19 |  111.1
       84      2.45   97.64 |  1.11.
       81      2.36  100.00 |  (other patterns)
-------------------------+-------------
     3429    100.00         |  XXXXX
```

3.2 The Factors Affecting the Use of Family-Friendly Programs

Dependent Variables

Four dependent variables are employed to examine the determinants of use of family-friendly programs. The first variable measures whether a female employee uses any family-friendly programs during the survey period. If a respondent uses one of the listed family-friendly programs, her response is coded as ‘1’. Otherwise the variable is coded as ‘0’. This variable looks into all family-friendly programs: menstruation leave, maternity leave, childcare leave, family care leave, childcare facilities at work, tuition subsidy, childcare cost subsidy, short work time during childcare period, flextime, telecommuting, telework, alternative work schedule, part-time, and term alternative work schedule.

The other three dependent variables are constructed in a similar way, with each representing the use of one of the family-friendly programs. The second dependent variable, referred to as ‘using long-term leave programs,’ is dichotomous and coded as ‘1’ if a respondent

used maternity leave, childcare leave, or family care leave during the KWMP's survey period. The third variable is 'using financial support programs' and represents the use of a workplace-affiliated childcare facility, tuition subsidy, or childcare cost subsidy. The last dependent variable is 'use of flexibility programs,' which measures whether a female employee used one of the flexibility programs (i.e., short work time during childcare period, flex time, telecommuting, telework, alternative work schedule, part-time, and term alternative work schedule).

Table 3.1 Programs in Each Dependent Variable

Name of dependent variable (Category of programs)	Name of programs
Long-term leave	maternity leave, childcare leave, family care leave
Financial support	childcare facilities at work, tuition subsidy, childcare cost subsidy
Flexibility program	short work time during childcare period, flex time, telecommuting, telework, alternative work schedule, part-time, term alternative work schedule

Independent Variables

Four categories of independent variables are employed to examine the determinants that influence a female manager's use of the family-friendly program: the individual's need, the individual's human capital, the individual's position within an organization, and the organizational features of the company. To represent an individual's need to use programs, the age of the youngest child is used. The reference category is no child and four dummy variables

which include: ages 0-2, ages 3-7, being in elementary school, and being in middle or high school.

The variables used to measure an employee's human capital include personal income, an individual's rank, and occupation. First, personal income is based on self-reported average monthly gross income for the most recent year. Logged personal income is used for analyses. Regarding an individual's rank in an organization, in the original questionnaire, six ranks are presented and the respondent chooses one of them: staff, assistant manager, section chief, deputy department head, department head, and executive.[9] Because the KWMP targets female 'managers', it initially only surveyed female employees whose position is at the level of assistant manager or higher. However, in replenishing respondents after drop-outs in the fourth wave (2012), a small number of positions were added. For the analysis, individual rank is grouped into two categories, making it a dummy variable. The reference category includes staff and assistant manager, and the other covers positions higher than assistant manager who have the authority to make decisions for the section of a company she is in charge of. The last variable measuring human capital is occupation. There are 22 categories of occupations a female manager can have: research and development, management planning, management information, purchase and materials management, asset management, law and general affairs, human resource management, finance, marketing, domestic sales, overseas sales, PR/IR, customer service, production management, production technology, manufacturing, environment and protection, quality control, service, education, secretary, and healthcare.[10] For the analysis, 22 occupations are

9 Translation of each rank is as follows: staff (사원), assistant manager (대리), section chief (과장), deputy department head (차장), department head (부장), and executive (임원).

10 The translation is as follows: research and development (연구개발), management planning (경영기획), management information (경영정보), purchase and materials management (구매/자재관리),

collapsed into two categories; whether or not a female manager has a managerial or professional occupation. The category of 'managerial or professional' includes: R&D, management planning, human resource management, and finance, and it is coded as '1'; the other occupations serve as a reference category, coded as '0'.

The variables for an individual's position within an organization include gender of immediate supervisor and employee's evaluation of immediate boss's gender neutrality, and family-friendliness of the organization. Gender of immediate supervisor is a dummy variable (1 = female, 0 = male). The variable of employee's evaluation for immediate supervisor's gender neutrality comes from an aggregated score of the following eight questions: (1) my immediate supervisor treats employees fairly regardless of gender in evaluation for merit rating; (2) my immediate boss provides an equal opportunity to improve my ability regardless of gender; (3) my immediate supervisor allows changes in work times, work overtime, and vacation schedules for personal reasons; (4) my immediate boss considers my balance of work and family; (5) my immediate supervisor is interested in my problems; (6) my immediate supervisor emphasizes harmony and solidarity of the team; (7) my immediate supervisor tends to force me to drink during company dinners; (8) my immediate supervisor does not like it if I leave the office earlier than him/her. The eigenvalue from a factor analysis for these questions confirms all eight questions can be aggregated into one variable. The Cronbach alpha value confirms high internal consistency among the eight questions ($\alpha = .817$).

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asset management (자산관리), law and general affairs (법무/총무), human resource management (인사노무관리), finance (회계/재무), marketing (마케팅), domestic sales (국내영업), overseas sales (해외영업), PR/IR(홍보), customer service (고객지원), production management (생산관리), production technology (생산기술), manufacturing (생산제조), environment and protection (환경안전), quality control (품질관리), service (서비스), education (교육), secretary (비서), and healthcare (의료)

In order to ask a respondent how she perceives the family-friendliness of her company, nine questions are employed. A factor analysis shows that they can be divided into two categories, and six questions related to family-friendliness of the organization are used to generate an aggregated variable. They are: (1) leaving work on time makes me wary of my boss; (2) the company puts strong emphasis on performance; (3) it is hard to take a day-off during the week for personal reasons; (4) working late nights are a good way to get a positive evaluation; (5) it is hard to survive in the company unless working is regarded as the highest priority; (6) being absent from get-togethers or any company gathering makes me wary of my boss. The Cronbach alpha value confirms there is a high internal consistency among the eight questions ($\alpha = .744$).

The variables of organizational features include the size of a company, proportion of women on the board of directors, existence of labor unions, type of company, and industry. The size of a company is the number of regular employees reported by an HR manager and is collapsed into three categories: 1-299, 300-999, and 1000 or more employees (reference category). Initially, the KWMP sampled only companies with 100 or more employees, but some companies that experienced downsizing due to economic recession are included in the 2012 and 2014 surveys. The proportion of female board members is calculated as the number of female board members over the number of all directors. The existence of a labor union is a dummy variable and coded '1' if a company has a labor union. Company type is also a dummy variable; reference categories include domestic private companies and other companies (i.e., foreign companies, public companies, and joint venture companies) and are coded '1'. Industry has five categories: manufacturing (reference category), wholesale/retail, finance, business services (i.e., a company providing services for other companies, e.g., consulting, accounting, R&D, and marketing), and others.

3.3 The Effect of the Use of a Long-term Leave Program on Career Development

Dependent Variables

To examine how the use of long-term leave family-friendly programs affects the careers of female managers, two dependent variables are used: (1) wage growth and (2) promotion within two years after using a program. Each variable is dichotomous. In the same way, if a female manager's wages increased between the wave reporting use of a program and the following wave, the wage variable is coded '1' and otherwise coded as '0'. If a female manager is promoted between the wave reporting use of a program and the following wave, the promotion variable is coded '1'. Considering this survey design, it seems reasonable to use information on promotion and wage changes between the current and following waves.

Independent Variables

In this analysis, use of family-friendly programs constitutes independent variables. Focusing on the use of two types of long-term leave programs, maternity leave and/or childcare leave, independent variables are generated in four different ways: (1) use of either program, (2) use of only maternity leave, (3) use of only childcare leave, and (4) use of both programs. These variables are used alternatively and not at the same time.

The survey asks a respondent whether she used any family-friendly programs between the current wave and the previous wave, with a two-year gap between any two consecutive waves. For instance, the fourth wave questionnaire (2012) asks respondents about their use of long-term leave programs between the third and fourth waves (2010-2012).

Control Variables

Several variables that can affect an individual's program use and career development are controlled for. The variables related to an individual's human capital include: years of tenure at present workplace (continuous), whether she has earned a graduate school degree (1 = yes, 0 = no graduate school degree), rank (0 = staff or assistant manager, 1= higher level manager), and occupation (1= professional or managerial occupation, 0 = other).

To control for the effects of organizational characteristics on an individual's program use and career development, the following six variables are included: gender of immediate boss (1 = female, 0 = male), respondent's evaluation of her immediate supervisor's gender neutrality (continuous), respondent's evaluation of family-friendliness of the organization (continuous), size of the firm (1-299, 300-999, and 1000 or more employees, which is the reference category), existence of a labor union (1=yes, 0 = no labor union), industry of the company (manufacturing, which is the reference category, wholesale/retail, finance, business service, and others). For the analysis of wage increase, promotion is also controlled for since elevation of rank may result in increased wages.

3.4 The Effect of Use of Family-Friendly Programs on Fertility Intention

This research intends to examine female managers' fertility intentions for the second or higher-order child, thus those with only one child are excluded from the analysis. Women who are not of a childbearing age (over 45) are also excluded.

Dependent Variables

The dependent variable is fertility intention reported by the respondents. The respondents are asked "Do you have a plan to have a child in the future?"[11], and the answers are coded into two categories (1 = yes, and 0 = no).

Independent Variables

Each category of family-friendly programs used by the respondents constitutes an independent variable. If the respondent used any family-friendly programs, the variable "any program" is coded '1', and '0' indicates that the respondent did not use any program in the wave. Other independent variables representing the use of programs are operationalized using the same dichotomous categories: long-term leave programs (maternity leave, childcare leave/parental leave, and family care leave), financial support programs (provision of childcare facilities, childcare subsidy, and tuition subsidy), and flexibility programs[12] (short work time during childcare period, flextime, telecommuting, telework, alternative work schedule, part-time, and alternative work schedule during a particular term). The first independent variable, any program use, also includes use of menstrual leave in addition to all family-friendly programs listed above.

11 The Korean is as follows: "앞으로 자녀를 가질 계획이 있으십니까?"

12 These include short work time during childcare period (육아기 근로시간 단축제), flextime (시차출퇴근제/탄력근무제), telecommuting (재택근무), telework (원격근무제), alternative work schedule (선택적 근무제), part-time (단시간 근무제), and alternative work schedule during a particular term (기간제 시간선택제)

Control Variables

The analysis also considers several variables that could affect an individual's decision to have another child: age (ranging from 22-45), level of education (1=graduate school degree, 0=no), age of the first child (1 = older than 7, 0=newborn to 7 years old), and personal income (logged). To control for the effect of macro-level economic conditions, the analysis also includes the calendar year of the wave. Note that all control variables are constructed in the same way as the previous two bodies of analysis.

The multivariate analysis also controls for organizational variables, which may affect an individual's use of family-friendly programs: (1) a respondent's rank, (2) size of the company, and (3) type of company.

3.5 Summary and the Relevant Chapters

Table 3.2 presents the list of variables to be used for the analysis and specifies the chapters in which the analysis will be conducted. Chapter 4 will discuss the determinants of the use of a family-friendly program. Dependent variables include whether a female employee uses (1) one of any family-friendly programs, (2) one long-term leave program, (3) financial support programs, and (4) flexibility programs during the survey period. Three categories of independent variables are used: human capital, an individual's position in the organization, and organizational features.

Chapter 5 will discuss the influence of the use of family-friendly programs on career development (wage growth and promotion) in the two years following using a program.

Dependent variables are (1) wage growth and (2) promotion within two years after using a program. Independent variables are (1) use of either program, (2) use of only maternity leave, (3) use of only childcare leave, and (4) use of both programs respectively.

Chapter 6 will discuss the impact of the use of a long-term leave program on respondents' fertility intention with the dependent variable being self-reported fertility intention to have an additional child in the future. Each category of family-friendly programs (one of any of the following programs: long-term leave programs, financial support programs and flexibility programs) used by the respondents is an independent variable.

Table 3.2 A list of Variables Used in Each Analysis

Research Questions	Dependent variables	Independent variables	Control variables
(Chapter 4) The Factors Affecting the Use of Family-Friendly Programs	family-friendly program use	Individual needs • Youngest child's age Human capital • Personal income • Rank • Occupation Individual context within Organization • Gender of immediate supervisor • Evaluation for immediate supervisor's gender neutrality • Evaluation for family-friendliness of organization Organization • Size of company • Female board member (%) • Existence of labor union • Type of company • Industry	-

Table 3.2 (continued) A list of Variables Used in Each Analysis

Research Questions	Dependent variables	Independent variables	Control variables
(Chapter 5) Consequences of using family-friendly programs for career	Career development • Wage growth • Promotion	Use of family-friendly programs	Promotion Years of tenure Graduate degree Rank Occupation Gender of immediate supervisor Evaluation for immediate supervisor's attitude Evaluation for family-friendliness of organization Size of company Existence of labor union Industry
(Chapter 6) The use of family-friendly programs and its effect on fertility intention	Intention to have second or higher parity children	Use of family-friendly programs	Age Graduate degree Personal income Survey year Age of the first child Rank in organization Size of the company

Chapter 4

The Determinants of the Use of Family-Friendly Programs

4.1. Introduction

Since Korean policy makers recognized the severity of work-family conflicts that many workers experience and began to be concerned about the sustained prospect of low fertility (arguably as a result of work-family conflicts), they started to adopt programs in order to resolve these issues. Many laws and policies have been enacted and implemented. In parallel, several academic papers have examined changes taking place at the institutional level as a consequence of the enactment of these laws and/or policies intended to help employees balance work and family (e.g., Beak and Park 2013; Beak, Kelly, and Jang 2012; Baek and Kelly 2014). According to the "Act on Equal Employment and Support for Work-family Reconciliation", Korean women who are eligible to use multiple family-friendly programs can now use up to 90 days of maternity leave, up to one year of childcare leave, and several flexibility programs during the period of their pregnancy and early child care. Benefits of these programs are as progressive as those provided by Scandinavian welfare states (OECD 2015).

However, although numerous Korean companies have adopted and implemented family-friendly programs, a limited number of studies in Korea pay attention to the users of those family-friendly programs and the determinants influencing female employees' use of family-friendly programs. While the literature in the U.S. indicates that both workplace characteristics and individual-level factors affect use of family-friendly programs (e.g. Blair-Loy and Wharton

2002; Golden 2001), few Korean studies consider both levels of factors simultaneously. Studies in Korea have focused on organizations' adoption and practices at the organizational level (Baek, Kelly, and Jang 2012; Baek and Kelly 2014; Baek and Park 2013; Koo 2009). They have not examined the determinants of individual behaviors, which are embedded in organizational contexts, nor the influences of organization characteristics on individual behaviors. It is important to consider both levels at the same time. This chapter examines the determinants of the use of family-friendly programs, considering characteristics at both the individual and organizational levels. Consequently, this chapter aims to address the following questions: (1) Who chooses to use family-friendly programs in Korean companies? (2) What individual and/or organizational factors affect the differences in program use? (3) Do the influential factors vary by program?

4.2. Theoretical Perspectives

The previous studies explain the determinants of the use of family-friendly programs using an individual need, rational choice theory, and neo-institutionalism. They argue individual need affected by family circumstance, especially the presence of those who may need extra care, initiates employees' use of family-friendly programs. Two other theories focus on the influence of organizational factors on an individual's use of family-friendly programs. Rational choice theory asserts that companies that want to maximize their profits are likely to offer family-friendly programs to employ or retain employees with a higher level of human capital who can contribute to increasing profits. The offer by companies' of family-friendly programs is ultimately connected to employees' use of family-friendly programs. Neo-institutionalism argues

that the level of institutional pressure on an organization, varying by the company's characteristics, influences workplace culture and is associated with a company's adoption (or not) of family-friendly programs and of employees' perceptions of family-friendly programs (e.g., the easiness of using family-friendly programs and risks of career penalties after their use). And workplace culture impacts workers' use of family-friendly programs through the levels of adoption and employees' perceptions.

The literature argues that individual needs for family care drive the use of family-friendly programs (Blair-Loy and Wharton 2002; Fried 1998; Glass and Estes 1997; Golden 2001; Maume 2006; Sandberg 1999; Thompson, Beauvais, and Lyness 1999). The presence of young children who need maternal care increases mothers' use of family-friendly programs. It is not only the social norm that regard mothers as primary caregivers, but also a poor childcare environment in Korea pushes female employees with young children to use family-friendly programs. An insufficient number of public childcare facilities and the unsatisfactory quality of care provided by them (e.g., high child-to-teacher ratios, limited hours of operation, and even cases of child abuse) increase the use of the programs. A lack of access to reliable alternative caregivers (e.g., children's grandparents) can be another factor. Female managers' needing to finance their children's education is likely to increase their use of financial support programs (Yoo 2009; Lee et al. 2010). Despite substantial amount of governmental support for students enrolled in public and private educational institutions, a large portion of their educational expenses is still paid by parents, and subsidies from companies for children's education can be helpful. Despite children becoming ineligible for long-term programs as they grow up mothers' needs for providing extra childcare (e.g., the provision of private education) for their children can encourage the mothers to utilize flexibility programs.

However, individual need alone is insufficient to explain female managers' use of family-friendly programs. Because they are embedded in a company, their decision to utilize family-friendly programs is also influenced by workplace culture. Workplace culture has multifaceted influences on the use of family-friendly programs, interacting with employee's human capital, her position within a company, and the macro features of a company.

Interacting with workplace culture, an individual's human capital could have both positive and negative effects on the use of family-friendly programs. Working at a company which values human capital and work-family balance is likely to increase a female manager's use of family-friendly programs, because its workplace culture empowers employees with greater human capital. In this context, according to rational choice theory, companies are likely to offer better fringe benefits, such as accessibility to family-friendly programs, since they tend to be very highly skilled and are not easily replaceable, traits associated with greater bargaining power (Barrow 1999; Davis and Kalleberg 2006; Desai and Waite 1991; Glass and Estes 1997; Glass and Fujimoto 1995; Osterman 1995). Moreover, certain characteristics of their occupations – high flexibility and autonomy – allow them greater access to family-friendly programs.

Increase in years of tenure enables female workers to have a more stable role and clearer responsibility (Lee and Lee 2011), and thus female managers with longer tenure are more likely to use family-friendly programs. Professional and managerial workers may be more likely to have access to programs, because they may have greater bargaining power when negotiating with employers and supposedly a lower possibility of being replaced (Baek et al 2012; Glass and Fujimoto 1995); in addition, qualified professional workers are in general preferred workers, and greater accessibility to the programs is offered as a HR management strategy (Baek and Park 2013; Weedan 2005).

In contrast, workplace culture could limit female managers' use of family-friendly programs, because using them is often regarded as a violation of the ideal worker norm. A company's expectations, such as commitment, sacrifice, and obligation, to those who have greater human capital increase as the values of their human capital increases. More rigid workplace norms are applied to them, and they are exposed to a greater risk of penalty for their use (Lee and Lee 2011). Since companies expect higher-ranking employees to be more responsible for their tasks and to show greater commitment to the company (Blair-Loy 2003), in response to their expectation, an employee will tend not to use family-friendly programs. In addition, as the ideal worker norm requires, it is expected that professional and managerial workers devote their whole life to work, do overtime, and are always ready to work, so their use of family-friendly programs may be discouraged.

Respondents' positions within an organization are also connected with workplace culture and are likely to influence a female manager's use of family-friendly programs through her perception of the ease of use of family-friendly programs. A female manager working with a female immediate supervisor is more likely to use family-friendly programs than are workers with a male supervisor. A supervisor's own personal experiences may make her more open to work-family balance issues and have empathy or be sympathetic with her subordinate's difficult situation (Blair-Loy and Wharton 2002), making for a more family-friendly environment. A female manager's perception of an immediate supervisor's gender neutrality in evaluating the performance of the workers could play an important role in the use of family-friendly programs. Similarly, the family-friendliness of the workplace environment positively influences the use of family-friendly programs (Flack and Reskin 1998; Fried 1998; Thompson, Beauvais, and Lyness 1999).

Macro-organizational features are used to indirectly measure organizational culture, which may affect a female manager's family-friendly program use by her perception of ease of use of programs and the level of risk of penalty. According to neo-institutionalism, a company's responsiveness to and internalization of institutional pressure determines the level of family-friendliness of workplace culture. Working at a company with a more family-friendly workplace culture positively affects a female manager's use of programs.

First, the size of a company determines its employees' accessibility to family-friendly programs and then impacts the use of the programs. Neo-institutionalism argues that a large company has higher visibility in the market and can become a target of normative pressures around family-friendly practices (Blair-Loy and Wharton 2004). And, thus, large companies tend to actively adopt family-friendly programs and allow their workers to use them, in order to conform to social norms of work-family balance. Consequently, female workers at a large company are likely to feel their accessibility to family-friendly programs is higher and workplace culture is more family-friendly, factors connected to greater use.

Second, the presence of female board members can affect the family-friendliness of a company, which then influences female managers' levels of program use. Since board members have power to decide the company's family-friendly policies, it is expected that female board members contribute to creating more family-friendly environments by reflecting their own experiences as female employees (Stainback and Kwon 2012; Galinsky and Bond 1998; Konrad and Mangel 2000).

Third, it is understood that labor unions aim to protect employees' rights, and thus their presence in a company contributes to institutionalization and implementation of the family-

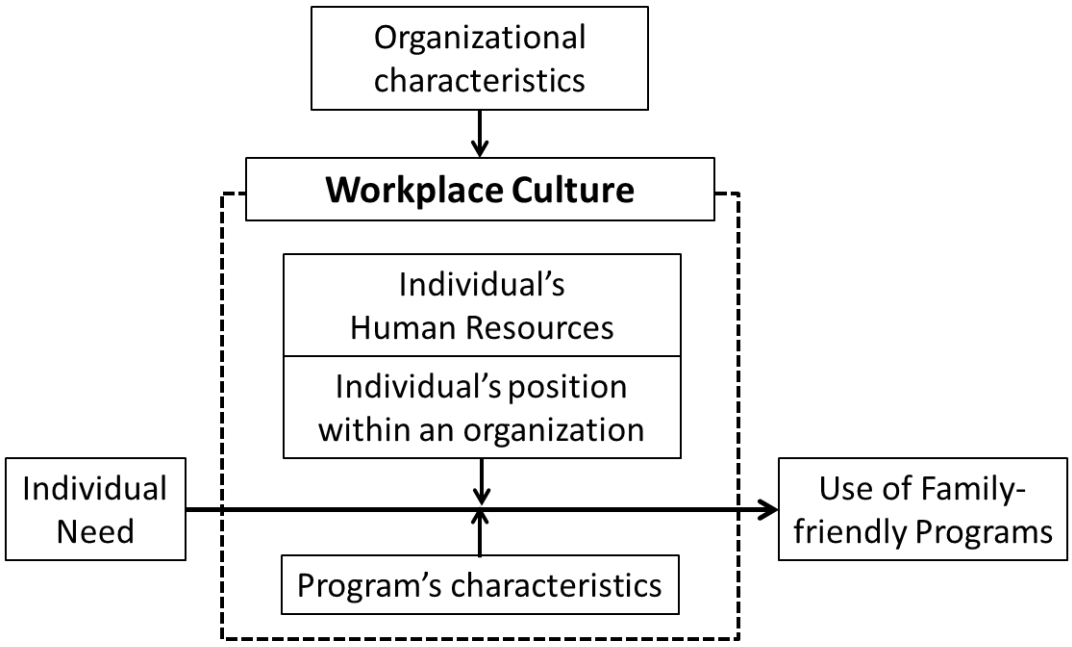
friendly programs (Lee 2010; Budd and Brey 2003), which contributes to shape of family-friendly workplace culture. Thanks to the activities of labor unions, which are expected to advocate for employees' work-family balance, a female manager working at a company with a labor union is more likely to use the programs.

Fourth, types of company affect female managers' family-friendly programs use by variations in accessibility to programs and workplace culture. When adopting programs promoting work-family balance is settled in Korean society as a social norm (regardless of whether or not they are actually implemented), companies that encounter a higher degree of pressure of the norm of work-family balance will react to the norm. Because the government is making efforts to promote the norm, public companies, which are directly influenced by central and local governments, are likely to adopt and implement the family-friendly programs through the mechanism of coercive isomorphism (DiMaggio and Powell 1983; Baek and Kelly 2014; Galinsky & Bond, 1998). According to neo-institutionalism, other types of companies, foreign companies or joint ventures with foreign companies, are also likely to be sensitive to work-family balance norms, because they are influenced by their mother companies, with more family-friendly foreign cultures (Baek, Kelly, Jang 2012). Reflecting the family-friendly management practice of their mother companies, foreign companies or joint ventures are likely to adopt more family-friendly programs and increase employees' accessibility to the programs.

Lastly, the effect of industry on the use of family-friendly programs vary by the characteristics of the industry. In particular, it is known that fringe benefits provided by financial sector companies are more generous than those of companies in other industries (Yoo 2007).

Figure 4.1 presents a theoretical frame for this chapter: individual need initiates the use of family-friendly programs, and organizational culture interacting with an individual's human capital, a female manager's position within an organization, and a program's characteristics mediates the effect of individual need on the use of family-friendly programs.

Figure 4.1 Theoretical Framework: The Determinants of the Use of Family-Friendly Programs



4.3 Variables and Descriptive Statistics

Table 4.1 presents the descriptive statistics of the variables used in this chapter. To prevent losing observations, the mean imputation method is used for some continuous variables during the analyses. Except dependent variables, all reported numbers are calculated based on 9,365 person-waves.

The four dependent variables are as follows: whether a female employee uses one of any family-friendly programs during the survey period; whether a respondent uses a long-term leave program; whether a female manager uses a financial support program; and whether a female worker uses a flexibility program. Four categories of independent variables are used to investigate the factors affecting female managers' use of family-friendly programs: individual need (measured by the age of the youngest child), employees' human capital (personal income, rank, and occupation), an individual's position within an organization (gender of immediate supervisor, respondent's evaluation on boss's gender neutrality, and female manager's assessment on family-friendliness of an organization), and macro characteristics of an organization (size of the company, proportion of female board members, presence of a labor union, type of company, and industry). The category of an individual's position within an organization aims to directly measure an employee's perception of workplace culture, and the macro characteristics of an organization intends to indirectly test how workplace culture varies according to features of the organization. Variables measuring individual need and human capital are included at the second level, and variables in the categories of an individual's position within an organization and macro characteristics of an organization are put at the third level.

Of 9,365 person-waves that report whether or not at least one family-friendly program was used, 38.08% responded as using at least one program. Of 9,289 person-waves that have access to long-term leave programs, 11.65% report using one. Of 6,250 person-waves, 18.62% report using a financial support program, and 25.78% of 2603 person-waves shows use of one flexibility program. Looking at the use of the programs only among those who have access to and are eligible for the programs, the largest proportion of the sample used the flexibility programs. However, flexibility programs are not yet fully implemented (i.e., there are low levels

of companies' adoption and employees' eligibility), and the number of respondents that used flexibility programs is small.

Reflecting the low fertility trend in Korea, of 9,365 person-waves, 34.7% report they have no children. Among respondents with one or more children, the distribution of the youngest child's age is as follows: 0-2 21.1%, 3-7 20.2%, elementary school-age14.7%, and middle school-age or older 8.9%.

The first group of independent variables represents human capital. Average monthly income has a wide distribution, from 0 to 10 million KRW (S.D. = 214.788), and its mean is 3.52 million in KRW (equivalent to 3,300 USD). An individual's rank is divided into two categories, 48.5% of all person-waves are low-ranked (staff or assistant manager). The occupation is also dichotomous, with 41.1% of all person-waves holding a professional or managerial position.

Table 4.1 The Result of Descriptive Statistics on Variables

	Variables	Mean, Standard Deviation, and Range
Dependent variable	The use of at least one family-friendly program (Person-waves = 9,365)	Used (38.0%); Not (61.9%)
	The use of long-term leave programs (Person-waves = 9,289)	Used (11.6%); Not (88.3%)
	The use of financial support programs (Person-waves = 6,250)	Used (18.6%); Not (81.3%)
	The use of flexibility programs (Person-waves = 2,603)	Used (25.7%); Not (74.2%)
Independent variables	Youngest child's age	No child (34.7%); 0-2 (21.1%); 3-7 (20.2%); Elementary (14.7%); Middle school or older (8.9%)
	Monthly income	352.128; 241.788; 0-10,000
	Rank	Low (48.5%); high (51.5%)
	Occupation	Non-professional/managerial (58.8%); Professional/managerial (41.1%)
	Gender of immediate supervisor	Male (79.5%); Female (20.4%)
	Gender neutrality of the immediate supervisor	3.594; .582; 1-5
	Family-friendliness of the organization	2.954; .593; 1-5
	Size of company	Small (36.7%); medium (25.4%); large (37.8%)
	Female board member (%)	5.393; 13.751; 0-100
	Labor union	Yes (50.7%); No (49.2%)
	Type of company	Domestic-private (51.6%); Foreign, public, and joint-venture (48.4%)
	Industry	Manufacturing (23.4%); Wholesale/retail (6.7%); Finance (26.5%); Business service (31.3%); others (11.8%)

Note: For categorical variables, percentages are reported. Except for rounding errors, percentages add up to 100%. For continuous variables, means, standard deviations and ranges are reported. The reported numbers for independent variables are calculated based on 9,365 person-waves.

The second group of independent variables represents individual characteristics within the organization. At the time of survey, for 20.4% of all person-waves the immediate supervisor was female. Using a 5-point Likert scale, respondents' evaluation for an immediate supervisor's gender neutrality and the family-friendliness of an organization are measured. Female managers assess their immediate supervisors as somewhat gender neutral (3.594, between 3, moderate, and 4, agree), but an organization's family-friendliness is evaluated as slightly poor (2.954, between 2, disagree, and 3, moderate).

The last group of independent variables includes organizational characteristics. The percentages of all person-waves working at small-size (1-299 employees), medium-size (300-999 employees), and large-size companies (1000 or more employees) are 36.7, 25.4, and 37.8, respectively. On average, the percentage of the board of directors that is female is very low (5.3%). A labor union is present in the company for 50.7% of the respondents, which is five times the unionization rate across all Korean companies (10.3% in 2016). This high rate of unionization may be a result of the size of the companies, because the KWMP surveyed companies with at least 100 employees or more. With respect to the type of company, 48.4% of companies are foreign, public, or joint-venture companies. The distribution of company industry is as follows: manufacturing 23.4%, wholesale/retail 6.7%, finance 26.5%, business service 31.3%, and other 11.8%.

4.4. Results

The Use of at Least One Family-friendly program

Table 4.2 presents the determinants of using at least one family-friendly program. Model 1 includes only the youngest child's age as reflecting an individual's need to use family-friendly programs. The influence of the youngest child on the use of any family-friendly program remains stable throughout models. Its unchanging statistical significance across categories of age of the youngest child means that whether having a child or not having a child plays a significant role in the decision to use family-friendly programs. At the same time, differences in the calculated odds of each category effectively present differences in the likelihood of using programs. Compared to the reference category (no child), a female manager whose youngest child is 0-2 years old is 23.27 times more likely to use a family-friendly program. A mother with a 3 to 7-year-old (before enrollment in elementary school) is 4.41 times more likely; a female employee with an elementary school student is more likely to use at least one program by 85.6%. In cases where the youngest child is middle school-age or older, a mother is 4.65 times more likely to use a program.

Model 2 adopts an individual's human capital variables. The effect of the youngest child's age on at least one family-friendly program remains the same. The effect of variables of human capital on the use of family-friendly programs varies; a mother with greater income is more likely to use a program. In contrast, a high-ranking female employee is less likely to use a program, than a low-ranking mother. Occupation has no significant effect.

Table 4.2 The Determinants of the Use of at Least One Family-Friendly Program

Variables	Model 1	Model 2	Model 3
Youngest child's age (No Child[a])			
0 – 2	3.147***	3.168***	3.134***
	(.125)	(.126)	(.127)
3 - no school (age 7)	1.484***	1.500***	1.450***
	(.113)	(.115)	(.116)
Elementary	.620***	.647***	.590***
	(.126)	(.128)	(.129)
Middle school or older	1.537***	1.555***	1.495***
	(.159)	(.161)	(.161)
Personal income		.230**	.207**
		(.074)	(.076)
Rank (Staff and Assistant manager[a])		-.257**	-.217**
		(.083)	(.084)
Occupation (Non-managerial and professional[a])		.042	.059
		(.073)	(.073)
Gender of immediate supervisor (Male[a])			.044
			(.092)
Evaluation for immediate supervisor's gender neutrality			.174*
			(.070)
Evaluation for family-friendliness of an organization			.121*
			(.051)
Size of firm (1,000 or more employees[a])			
1 – 299 employees			-.624***
			(.168)
300 - 999 employees			.059
			(.161)

Table 4.2 (continued) The Factors Affecting the Use of at Least One Family-Friendly Program

Variables	Model 1	Model 2	Model 3
Female board member			-.003
			(.004)
Labor Union (No union[a])			.478*
			(.221)
Type of company (Private domestic company[a])			.214
			(.174)
Industry (Manufacturing[a])			
Wholesale/Retail			.177
			(.281)
Finance			.506**
			(.196)
Service			-.045
			(.188)
Others			.487
			(.307)
Constant	-2.004***	-1.845***	-2.580***
	(.110)	(.123)	(.354)
Person-wave	9365	9365	9365

Note: 1) *** p<.001, ** p<.01, * p<.05
2) Standard errors in parentheses
3) [a] reference category

Model 3 introduces two categories of organizational character-related variables: individual characteristics within an organization and the macro-features of an organization. These variables are employed to examine the effect of the organizational environment on the use of any family-friendly programs. The effect of variables examining individual needs and human capital on any program use remains the same as for previous models.

For individual characteristics within an organization, gender of immediate supervisor does not have a significant effect. Two variables used to examine organizational culture have a significant effect on the use of at least one family-friendly program. When a female manager's employee assesses her immediate supervisor as more gender neutral, she is more likely to use a family-friendly program. Similarly, a female manager who perceives the workplace environment as more family-friendly is more likely to use a program.

Among variables using macro-features of organizations, working at a small-sized company negatively affects the use of family-friendly programs, compared to the reference category (1000 or more employees), but there is no difference between a medium-sized company (300-999 employees) and the reference category. Proportion of female board members on a board of directors has no significant effect. Existence of a labor union positively affects female employees' use of family-friendly programs. There is no statistical difference by type of company. The effect of industry of the firm on using family-friendly programs varies; compared to a female manager in the manufacturing industry, working in the financial industry increases the likelihood of using at least one family-friendly program, while other industries do not show a significant difference.

One interesting finding is that the effect of rank on the use of any program varies by the size of company, due to the p-value ($p<.1$) (not reported in Table 4.2). Compared to a female manager working at a large-sized firm, a high-ranking female manager in a small-sized company is less likely to use family-friendly programs by 26.1% (exp(-.301) = 73.9). The size of a company moderates the effect of a female manager's rank on the use of family-friendly programs.

The Use of Long-term Leave Programs

Table 4.3 presents the determinants of the use of long-term leave programs (i.e., maternity leave, childcare leave, and family care leave). First, the effect of the youngest child's age on the use of long-term leave programs is conditional. Compared to a female worker without a child, a female employee with a 0–2 year-old child is 159.84 times more likely to use long leave programs. Both having a 3–6 year-old child and elementary school-age child also positively affect the use of long-term leave programs (6.4 times and 3.77 times respectively). However, raising a middle schooler or older child is statistically insignificant in using long-term leave programs. It seems that strict prerequisites for long-term leave programs accounts for this difference and is dependent on the youngest child's age; to use maternity leave, a female worker has to be pregnant and give birth, and to use childcare leave, the user's child must be younger than 9-yearsold or in the first grade of elementary school.

Table 4.3 The Determinants of the Use of Long-term Leave Programs

Variables	Model 1	Model 2	Model 3
Youngest child's age (No Child[a])			
0 – 2	-.160	-.125	-.183
	(.222)	(.226)	(.229)
3 - no school (age 7)	.347	.381	.302
	(.211)	(.215)	(.215)
Elementary	-.041	-.002	-.109
	(.232)	(.238)	(.237)
Middle school or older	.429	.492	.413
	(.270)	(.279)	(.278)
Personal income		-.081	-.021
		(.149)	(.153)
Rank (Staff and Assistant manager[a])		.102	.133
		(.176)	(.178)
Occupation (Non-managerial and professional[a])		.377*	.384*
		(.152)	(.153)
Gender of immediate supervisor (Male[a])			.384*
			(.176)
Evaluation for immediate supervisor's gender neutrality			.093
			(.139)
Evaluation for family-friendliness of an organization			-.018
			(.111)
Size of firm (1,000 or more employees[a])			
1 – 299 employees			.805**
			(.309)
300 - 999 employees			.443
			(.282)

Table 4.3 (continued) The Determinants of the Use of Long-term Leave Programs

Variables	Model 1	Model 2	Model 3
Female board member			-.015
			(.009)
Labor Union (No union[a])			-.694
			(.371)
Type of company (Private domestic company[a])			-.053
			(.408)
Industry (Manufacturing[a])			
Wholesale/Retail			.340
			(.521)
Finance			-.867*
			(.438)
Service			-.546
			(.380)
Others			-.201
			(.522)
Constant	-1.521***	-1.813***	-2.175**
	(.184)	(.237)	(.695)
Person-wave	9289	9289	9289

Note: 1) *** p<.001, ** p<.01, * p<.05
2) Standard errors in parentheses
3) [a] reference category

Model 2 examines the effect of an individual's human capital variables on the use of long-term leave programs. Personal income negatively affects a female worker's use of long-term leave programs; the more money she makes, the less likely she is to use long-term leave programs. A high-ranking worker is less likely to use long leave programs than a low-ranking employee. The effect of occupation is insignificant.

Model 3 introduces variables of organizational characteristics. The effect of the youngest child's age and personal income on the use of long-term leave programs is maintained, but the effect of rank disappears. All variables of individual characteristics within an organization on long-term leave programs are statistically insignificant. With respect to macro-organizational characteristics, the size of a company has a significant effect on the use of long-term leave programs. In particular, compared to a female worker in the large company, a female manager working at small-sized organization is less likely to use long-term leave programs. Effects of all other macro-organizational variables are insignificant, and this result may be explained by the fact that the law requires companies to provide the two most-used long-term leave programs (maternity leave and childcare leave) regardless of organizational characteristics.

The Use of Financial Support Programs

Table 4.4 presents the result of determinants of using financial support programs (i.e., company-affiliated childcare facilities, tuition subsidy, and childcare subsidy). In Model 1, compared to no children, having a child increases the likelihood of using financial support programs, regardless of the child's age. An interesting finding about this result is that a female manager with a middle schooler or older has the highest probability of using a financial support program. This is

probably due to the fact that financial support programs include tuition subsidies for older children, and thereby the female manager with the older child is more likely to use it to supplement educational costs.

Model 2 introduces an individual's human capital-related variables. The effect of the youngest child's age on the use of financial support programs remains unchanged. Increasing personal income positively affects female managers' use of financial support programs, but rank and occupation do not affect the use of financial support programs.

Organizational level variables are included in Model 3. For an individual's position within an organization, none of the three variables have a significant effect on the use of financial support programs. Among variables of macro-organizational characteristics, the company size, proportion of female board members, existence of a labor union, and type of company have no significant effect on the use of financial support programs. In contrast, the effect of a company's industry on the use of financial support varies. Compared to a female employee at a manufacturing industry company, a female manager working in wholesale/retail or the financial industry is more likely to use financial support programs.

Additionally, interaction between the size of a company and female managers' rank has a significant effect on the use of financial support programs. Compared to the reference category (low ranking × 1000 or more employees), a high-ranking manager of 0-299 workers is less likely to use financial support programs ($p<.1$) (Not presented in the Table 4.4).

Table 4.4 The Determinants of the Use of Financial Support Programs

Variables	Model 1	Model 2	Model 3
Youngest child's age (No Child[a])			
0 - 2	2.409***	2.435***	2.405***
	(.202)	(.204)	(.207)
3 - no school (age 7)	3.623***	3.584***	3.567***
	(.205)	(.206)	(.209)
Elementary	2.412***	2.344***	2.333***
	(.209)	(.212)	(.214)
Middle school or older	3.865***	3.792***	3.742***
	(.235)	(.239)	(.243)
Personal income		.286*	.268*
		(.112)	(.111)
Rank (Staff and Assistant manager[a])		.081	.148
		(.120)	(.123)
Occupation (Non-managerial and professional[a])		.124	.116
		(.104)	(.105)
Gender of immediate supervisor (Male[a])			-.007
			(.134)
Evaluation for immediate supervisor's gender neutrality			.006
			(.099)
Evaluation for family-friendliness of an organization			-.018
			(.075)
Size of firm (1,000 or more employees[a])			
1 – 299 employees			-.109
			(.208)
300 - 999 employees			-.134
			(.187)

Table 4.4 (continued) The Determinants of the Use of Financial Support Programs

Variables	Model 1	Model 2	Model 3
Female board member			.005
			(.005)
Labor Union (No union[a])			-.013
			(.258)
Type of company (Private domestic company[a])			.092
			(.240)
Industry (Manufacturing[a])			
Wholesale/Retail			.949**
			(.353)
Finance			.854***
			(.237)
Service			.358
			(.256)
Others			.511
			(.354)
Constant	-4.539***	-4.556***	-5.199***
	(.209)	(.228)	(.513)
Person-wave	6250	6250	6250

Note: 1) *** p<.001, ** p<.01, * p<.05
2) Standard errors in parentheses
3) [a] reference category

The Use of Flexibility Programs

Table 4.5 presents the determinants of using flexibility programs. Age of the youngest child does not have a statistically significant effect on the use of flexibility programs in Model 1. In Model 2, only occupation significantly affects the use of flexibility programs; a female manager with a managerial or professional occupation is more like to use flexibility programs than her counterpart with a non-managerial and non-professional occupation.

Model 3, organizational characteristics, shows gender of immediate supervisor, the size of a firm, and industry have significant impacts on the use of flexibility programs after controlling for other variables. Specifically, when a female manager's immediate boss is female, she is more likely to use flexibility programs by 46.8%. Working at a small-sized company with 1-299 employees positively affects the use of flexibility programs, compared to a large-sized firm, but no statistical difference between medium- and large-sized companies is found. A female manager at a financial firm is less likely to use the flexibility programs by 58% (exp(-867)=.420).

Table 4.5 The Determinants of the Use of Flexibility Programs

Variables	Model 1	Model 2	Model 3
Youngest child's age (No Child[a])			
0 – 2	-.160	-.125	-.183
	(.222)	(.226)	(.229)
3 - no school (age 7)	.347	0.381	.302
	(.211)	(.215)	(.215)
Elementary	-.041	-.002	-.109
	(.232)	(.238)	(.237)
Middle school or older	.429	.492	.413
	(.270)	(.279)	(.278)
Personal income		-.081	-.021
		(.149)	(.153)
Rank (Staff and Assistant manager[a])		.102	.133
		(.176)	(.178)
Occupation (Non-managerial and professional[a])		.377*	.384*
		(.152)	(.153)
Gender of immediate supervisor (Male[a])			.384*
			(.176)
Evaluation for immediate supervisor's gender neutrality			.093
			(.139)
Evaluation for family-friendliness of an organization			-.018
			(.111)
Size of firm (1,000 or more employees[a])			
1 – 299 employees			.805**
			(.309)
300 - 999 employees			.443
			(.282)

Table 4.5 (continued) The Determinants of the Use of Flexibility Programs

Variables	Model 1	Model 2	Model 3
Female board member			-.015
			(.009)
Labor Union (No union[a])			-.694
			(.371)
Type of company (Private domestic company[a])			-.053
			(.408)
Industry (Manufacturing[a])			
Wholesale/Retail			.340
			(.521)
Finance			-.867*
			(.438)
Service			-.546
			(.380)
Others			-.201
			(.522)
Constant	-1.521***	-1.813***	-2.175**
	(.184)	(.237)	(.695)
Person-wave	2603	2603	2603

Note: 1) *** p<.001, ** p<.01, * p<.05
2) Standard errors in parentheses
3) [a] reference category

4.5. Discussion and Conclusion

This chapter examines the determinants of use of family-friendly programs among Korean female managers. The summary of the findings are as follows: individual need initiates the use of family-friendly programs and is the most influential factor. Individual need based on the necessity of taking care of a young child drives the use of family-friendly programs. Other factors interacting with workplace culture mediate the effect of individual need on the use of family-friendly programs. Moreover, the determinants of use of each family-friendly program vary by the characteristics of the program. The findings of this chapter highlight the importance of workplace culture in the use of family-friendly program. Despite the strong triggering effect of individual need and other variables mediating effects, the culture of a workplace in which female managers are embedded raises the effects of all other variables; ultimately workplace culture is very closely connected to an individual's final decision regarding family-friendly program use. Workplace culture can function as a facilitator or an obstruction. So, how does the mediating effect of female employees' human capital, an individual's position within an organization, and macro features of an organization work?

Individual need

As the literature argues, individual need as measured by the age of the youngest child initiates female managers' family-friendly program use (Kelly 2010). The individual need measured by the age of the youngest child has a significant effect on the use of all programs, long-term leave programs and financial support programs. Given that children's age is inversely related to the amount of childcare on average, the likelihood of the use of family-friendly programs is high for

families with younger children who need extra care. In contrast, the youngest child's age does not influence the use of flexibility programs. It seems that despite young children's extra care needs, lack of widespread flexibility programs among Korean companies accounts for this result. The adoption and use rate of flexibility programs across Korean companies, using the same data, are relatively low compared to other programs (Min 2010).

Eligibility to use programs, depending on children's ages, also causes differences in the use of family-friendly programs (Blair-Loy and Wharton 2002; Fried 1998; Glass and Estes 1997; Maume 2006; Sandberg 1999; Thompson, Beauvais, and Lyness 1999). For instance, there are three long leave programs in the category of long-term leave programs: maternity leave, childcare leave, and family-care leave. The majority of long leave program users utilize maternity leave and/or childcare leave. Given that only a woman who is in her third trimester or gives birth can use maternity leave and many female managers use both long-term leave programs consecutively; a mother with a child age 0-2 is likely to use both programs. Moreover, since only a woman whose child is younger than 8 years old or below second grade in elementary school is eligible to use childcare leave - female managers with children those ages are likely to use childcare leave. In contrast, this child-age-based eligibility for childcare leave leads to no statistical difference between female managers with no children and those with middle school-age or older children. Because no laws guarantee female employees' right to use childcare leave for older children, the necessity of using those programs cannot be connected to their actual use.

The use of financial support programs varies by the age of the youngest child which is associated with taking care of mandatory education and the costs of education (Kim, Hwang, and Hwang 2009). At present, despite substantial subsidies from the Korean government (for a child

in public kindergarten, 60,000 KRW, and in private kindergarten 220,000 KRW), since kindergarten education in Korea is not a part of mandatory education, parents must pay a large portion of kindergarten education expenses. Consequently, to pay kindergarten education expenses, female employees use childcare subsidies. However, since elementary school education is a part of free mandatory education, a female manager who sends her child to elementary school is not necessarily going to use financial support programs.

Another important moment is when a child gets into a secondary educational institution; because high school is still not a part of mandatory education, a female manager with a child going to high school is likely to use a financial support program in order to pay tuition (Kim, Hwang, and Hwang 2009). For example, a civil servant who has a child going to high school can receive tuition allowance that is equivalent to the sum of the child's tuition and school expenses. With the extension of these results (using financial support programs to pay educational expenses and non-eligibility for older children's childcare leave), it is possible that the statistically significant effect of the oldest child on the use of any family-friendly program is influenced by this tuition subsidy (see Table 4.2 and 4.6).

One of the distinctive findings here is that, in the use of flexibility programs, there is no statistical difference between a female manager without children and any of her counterparts. It is possible that the low adoption rate of flexibility programs among Korean companies leads to non-difference in use based on the youngest child's age. With low adoption rates of flexibility programs, not only the limited number of female workers recognizes existence of those programs, but also companies do not actively encourage their employees to use flexibility programs (Min 2010). As a result, female managers do not have opportunities to use flexibility programs. For example, in 2009 (information from the 2010 wave), 57.0% of the respondents reported their

company offers no flextime, and 31.6% of them reported they don't know whether or not their company has it. Although the adoption rate of flexibility programs significantly increased in 2013 (information from the 2014 wave) compared to the 2010 wave, still more than 30% of companies surveyed had adopted no flexibility programs, and only a limited number of female managers used them in companies that did (e.g., alternative work schedule 33.5% and flextime 23.7%). Flexibility programs are not fully established in Korean companies and opportunities for Korean female managers to use flexibility programs are restricted.

Human Capital

Since it is the company that evaluates the female managers' human capital value and imposes workplace culture on employees, their behaviors – e.g., the use of family-friendly programs – are under the influence of workplace culture. Working at a company with less rigid workplace culture (lower levels of the ideal worker norm and the male-breadwinner and female-homemaker norm) is likely to be associated with lower risk of violation of workplace culture, and subsequently smaller or no penalty for use is expected. Female managers' perception of the family-friendliness of workplace culture and the expected negative consequences followed by use can may lead to differentials in likelihood of the use of family-friendly programs.

High levels of income are likely to limit female managers' use of long-term leave programs. This finding is in contrast to rational choice theory which says that a company's preference for employees with greater human capital means offering them more accessibility to family-friendly programs. First, organizational pressure associated with level of income limits female managers' use of long-term leave programs. In other words, because an organization

which largely favors the expectations of employers and supervisors requests a highly paid employee to devote her life to the organization, work-family balance for female managers can be hard (Blair-Loy 2003). As Williams (2000) puts it, an organization requiring an employee who is "perpetually available, no outside responsibilities or interests, rarely sick, and prioritizes work above all else, and single-minded focus at work" makes female managers use of long-term leave programs difficult.

When a female employee returns to the workplace after using long-term leave programs, she may encounter "flexibility stigma" in her career – promotion and/or income – for using long leave programs (Williams, Blair-Loy, and Berdahl 2013; Stone and Hernandez 2013) and even face a risk of losing her job (Kim 2006). To avoid these potential risks when they use long-term leave programs, female managers abnegate, and do not use long leave programs. According to the "Act on Equal Employment and Support for Work-Family Reconciliation"[13], an employer should not dismiss or discriminate against an employee for using childcare leave after an employee returns to work (Article 19 Clause 3). It also requires an employer to guarantee the user can return to the same work the employee used to do or which pays the equivalent level of wages (Article 19 Clause 4). Nevertheless, many Korean companies do not observe the act; they discriminate against users by penalizing them and/or pushing them to quit their positions (Kim 2006; Lee et al. 2004).

In addition to the negative influence of workplace culture on the use of long-term leave programs, decreased income during the use of the long-term leave programs can prevent their use (Lee, Ogawa, and Matuskura 2009; Lee and Lee 2016). When Korean female managers use

13 The name of the act in Korean is "남녀고용평등과 일・가정 양립 지원에 관한 법률"

long-term leave programs and flexibility programs, their income will decrease (Lee and Lee 2011). For example, at present, those who are insured through Employment Insurance can get 100% of their income when they use maternity leave. However, childcare leave allowance is paid by a fixed rate (40% of personal income) and there is a cap on the amount of allowance (minimum 500,000 KRW to maximum 1,000,000 KRW) (Ministry of Government Legislation 2018). The replacement rate for childcare leave allowance to ordinary income is still small, and the higher income users get, the more they lose. Consequently, for higher income childcare users, since using childcare leave is directly connected to losing significantly large amounts of income and is regarded as the cost of childcare leave, a higher income female manger may hesitate to use long-term leave programs.

Personal income positively affects financial program use ($p<.05$), which might be a strategy to minimize the influence of family-hostile workplace culture on career. It is possible that instead of taking long-term leaves that can be associated with career penalties, women choose to "outsource motherhood", especially managers who are mothers of preschoolers and kindergarteners (Kim and An 2016; Blair-Loy 2003 to see examples). They actively use financial support programs provided by their companies, and decide to stay at work, and this enables their children to get childcare services. They invent their own means to balance individual careers and family, since non-leave financial support programs allow female workers to stay in the workplace and use programs with low levels of stigma. This decision could prevent them from negative consequences caused by the use of long-term leave programs.

The significant effect of rank on the use of at least one family-friendly program is also connected to workplace culture. This may result from the fact that organizational pressure on higher-position workers is greater than for their counterparts whose position is low with less

responsibility at work (Blair-Loy and Wharton 2002); the level of organizational expectation on high-ranking employees may be bigger than their counterparts. As Blair-Loy (2003: 2) puts it, "employers and clients assume that high-level workers will be dedicated to their jobs and will not spend significant amounts of time on their other obligations". To meet the expectations of employers and clients, high-ranking employees tend not to use family-friendly programs, which are regarded as non-work-related obligations.

In contrast, for the use of at least one family-friendly program or financial support program, a female manager with higher income is more likely to use these programs. First, as rational choice theory argues, high personal income can function as leverage to use family-friendly programs (Baek et al. 2012; Glass and Fujimoto 1995; Osterman 1995; Davis and Kalleberg 2006). In many cases, the specialized job skills of professional or managerial occupation holders enable them to get high levels of income and protect them from easy replacement (e.g., dismissal). In addition, to keep or attract those people, a company guarantees their right to use the programs with a higher level of job autonomy and flexibility; this autonomy in their work allows them greater accessibility to the programs (Davis and Kalleberg 2006; Osterman 1995). Consequently, higher income associated with specialized job skills can allow them greater use of family-friendly programs in general.

Individual's position within an organization

An individual' position in a company is also associated with their perception of the family-friendliness of the company, and in turn affects female managers' use of family-friendly programs. A female immediate supervisor who may experience similar work-family conflict

issues may have empathy for her subordinate (Kwon and Kwon 2013); that empathy could enable a female manager to have lower levels of gender-based discrimination which could contribute to shaping a more family-friendly workplace environment. As a result, a female manager's use of family-friendly programs could be encouraged (Golden 2001; Blair-Loy and Wharton 2002). However, its impact is limited to female managers' use of flexibility programs. Since using flexibility programs needs the arrangement of tasks within an applicant's department/team as well as with department/sections related to the applicant's department/team, a supervisor's cooperation is required (Flack and Reskin 1998; Fried 1998; Thompson, Beauvais, and Lyness 1999). Characteristics of flexibility programs bring about these differences in the programs used.

Two variables (immediate supervisor's gender neutrality and family-friendliness of an organization) that aim to capture perceptions of organizational culture have the same significant effect only on the use of family-friendly programs, but they are insignificant regarding the use of other categories of programs. These results are not coherent with the findings of previous studies that working in a more family-friendly environment positively affects family-friendly program use (Blair-Loy and Wharton 2004). On the one hand, working with a more gender neutral immediate supervisor encourages female managers to use family-friendly programs. A gender neutral immediate supervisor is likely to understand work-family conflict (Kwon and Kwon 2013s), and thereby may be considerate with regard to what a female manager is experiencing and allow her to use programs at the supervisor's discretion. In addition, he/she may be free from or have lower levels of statistical discrimination (Schwartz 1996). These supportive characteristics of an immediate supervisor whose performance assessment directly affects a user's career could facilitate a female manager's program use (Kwon and Kwon 2013). With the

extension of the explanation of an immediate supervisor's gender neutrality, evaluation of the family-friendliness of the corporate environment works in the same way for the use of at least one family-friendly program.

For the results of the three organizational environment-related variables, one thing we should pay attention to is the insignificance of all three variables in the use of long-term leave programs. It seems that a high level of institutionalization of long-term leave programs encourages female managers to use the long leave programs and the influence of other factors is limited. For example, the annual report of the 2010 KWMP shows 100% of companies in the data have adopted maternity leave and 99.2% of companies report at least one of their employees used maternity leave. The high level of awareness of long-term leave programs affects those programs use (Min 2010). Since female employees recognize that using long-term leave programs is their own right guaranteed by laws, they use the programs. This result shows the importance of institutionalization/implementation of policies that support individual needs, which can lead to changes in the institutional environment.

Macro-organizational features

According to neo-institutionalism, organizational characteristics determines an organization's responsiveness to institutional pressure and subsequently plays an important role in its behavior (Baek and Kelly 2014). With enactment of laws and regulations that intend to protect maternity for female workers, companies encounter societal norms emphasizing the importance of work-family balance and adoption of family-friendly programs to help them to achieve it. A company which faces greater institutional pressure around work-family balance is likely to adopt family-friendly programs, which in turn allows higher accessibility to the programs and influences

female managers' perception of family-friendliness of workplace culture and the use of programs.

Both the size of a company—associated with visibility in the market—and the presence of labor unions which are a conduit to establishing the norm of work-family balance significantly affect female managers' use of family-friendly programs. To be specific, small companies are less likely to adopt family-friendly programs expected by the norm of work-family balance, and in turn employees' accessibility to them is limited, because their low visibility in the market reduces the level of social pressure (Baek and Kelly 2014). In addition, the existence of labor unions positively affects the use of family-friendly programs. Labor unions exist to advocate for employees' rights through official contracts with employers and to meet employees' desire for welfare (Lee 2010; Budd and Brey 2003). Especially, since labor unions have historically played a significant role in drawing attention to the issue of work-family balance, when the Korean government started to establish work-family balance policies (Lee 2010), unions were likely to actively engage on the issue of work-family conflict and advocate for employees' rights to use family-friendly programs.

Variation in the use of family-friendly programs by company industry is partially explained by workplace culture. Working in the financial industry negatively affects the use of flexibility programs. The level of welfare programs for employees across Korean financial companies is more generous than other industries (Yoo 2008). Indeed, financial companies offer greater money-based benefits to their employees than others: childcare subsidies and children's tuition support. However, employees in the Korean financial industry tend to come to the workplace earlier than other industry workers, do more overtime, and encounter stronger performance pressure (Cho, Choi, and Park 2007). These characteristics of the financial industry

nullify aspects of flexibility programs that emphasize working outside of workplace and flexibility of time use and subsequently prevent employees' use of flexibility programs (An and Shin 2010).

In addition to the influence of workplace culture, some organizational theories provide other explanations for the use family-friendly programs. First, in terms of company size and its impact on the use of family-friendly programs, a resource-based view (RBV) is useful. The size of a company can be related to the amount of resources the organization retains, and these resources influence accessibility to family-friendly programs (Galinsky and Bond 1998; Comfort, Johnson, and Wallace 2003; Goodstein 1994; Osterman 1995). Compared to companies in the reference category (1000 or more employees), an employee working at a company with 0-299 employees is less likely to use any family-friendly program or long-term leave programs. To allow a female manager to use family-friendly programs, especially long-term leave programs, a company needs to search for alternatives or successors to the program users and to train the new employees, which is considered a financial burden on a company (Aisenbrey, Evertsson, and Grunow 2009). Due to the limited capacity and resources to cover the costs of hiring and training, a small organization tends not to allow its employees to use family-friendly programs (Galinsky and Bond 1998; Comfort, Johnson, and Wallace 2003). Relatively limited resources may create a family-hostile environment.

Second, the resource-based view is also useful for explaining the positive influence of working in the financial industry on the use of at least one family-friendly program or financial support programs. With its relatively sufficient resources, financial companies are likely to offer more generous money-based benefits to their employees, such as childcare subsidies and children's tuition support.

Third, the less systemized corporate structure of many small-sized companies encourages female managers to use family-friendly programs. Since it is likely that a small-sized company will have no specific labor-related rules legally documented (Kim 2017), there is more room for a supervisor's discretion to play a significant role in determining female managers' use of flexibility programs. Moreover, ironically, multi-tasking working conditions at a small company could simplify adjustment of tasks when one employee wants to use flexibility programs (Kim 2017). Without hiring additional workers to cover the user's tasks, a company rearranges tasks among workers using the advantage of small size, which is associated with easiness in negotiating workload adjustment, and can facilitate flexibility program use.

Chapter 5

Unanticipated Consequences of Family-Friendly Programs for Career

5.1 Introduction

Family-friendly programs are intended to protect maternity, ameliorate gender-based discrimination in the workplace, and help employees balance work and family obligations. It is understood that their aims have been achieved to some extent; many policy reports published by the government and companies report that adoption and/or practice of the family-friendly programs contribute to improvement of the workplace environment and work-family balance among workers.

However, another line of study reports a contrasting reality; extensive implementation of family-friendly programs does not change workplace environments or employees' lives to any significant extent. Employees still work in a "family-hostile" environment, in which employees have difficulty balancing work and family lives, cannot use family-friendly programs, and are even exposed to negative consequences from the use of family-friendly programs that are supposed to be guaranteed by law. Around 15% of respondents report that they experience explicit discrimination or unfair treatment after they use family-friendly programs, and if unreported cases or implicit discrimination is included, it is possible that the real number is far greater. The literature also reports many cases of those who experience penalties in wage growth, promotion, and even employment status (i.e. dismissal) (Blair-Loy and Wharton 2004; Wharton, Chivers, and Blair-Loy 2008).

These counter-findings cast doubt on the actual effect of family-friendly programs. Given the contradictory findings from the two lines of research and the limited number of studies that systematically examine this issue in Korea's unique workplace culture , it is necessary to further examine the issue there. So, this chapter asks how the use of long-term leave programs influences female managers' career development (i.e., wage growth and promotion). If the use of long-term leave programs has significant effects, then this chapter examines how those effects vary by the characteristics of the program used (the type and length of the program).

This chapter aims to address the following questions: (1) How does using family-friendly programs affect women's careers? (2) Do the effects on women's careers vary by characteristics of the programs adopted by a company, such as the length of leave and/or financial burden on corporations?

5.2 Theoretical Perspectives

Previous studies report that using family-friendly programs may adversely impact users' career development, in terms of things such as wage growth and changes in position (promotion and demotion) (e.g., Ruhm 1998; Aisenbrey, Evertsson, and Grunow 2009; Evertsson and Duvander 2011). They also reveal that the level of penalty for the use of family-friendly programs would be associated with the length of the programs used. In terms of negative impacts on users' careers from the use of family-friendly programs, the literature provides possible explanations: their use is seen as a violation of workplace culture, the cost to companies of employees using family-friendly programs is considered, and use results in human capital depreciation.

First, using family-friendly programs is regarded as a violation of workplace culture (i.e., the norm of the ideal worker), which strengthens employers' statistical discrimination against users (Schwartz 1996), and negatively affects the users' career. The ideal worker norm requires that employees are always ready to work, devote their whole life to work, do not have outside responsibilities, and are single-minded in focusing on work (Charlesworth and Baird 2007; Williams 2000). The ideal worker norm also assumes a worker gets full support from a homemaker. Under capitalism, to maximize profit with minimum cost (e.g., cost of labor), employers operate their company based on the norm of the ideal worker (Charlesworth and Baird 2007) and expect employees to obey it fully.

Korean women's life circumstances, especially the poor quality of the childcare system, can cause them to violate the ideal worker norm. Without alternative caregiving options, Korean female workers who need to take care of children have to use long-term leave or flexibility programs (Kim and An 2016; Won 2005), and their use of family-friendly programs leads them to violate the ideal worker norm that employees have no other responsibilities and are single-minded in their work. This non-conformity with the ideal worker norm can lead to penalties being imposed on the users of family-friendly programs. Although they abide by other social norms (male breadwinner, female homemaker), their use of family-friendly programs makes them subject to penalties.

A level of rigidity in the family-hostile workplace is contingent on employees' human capital value, her position within an organization, and the macro features of the organization, and determines levels of penalty. An employee operating under a more rigid workplace culture is more likely to be penalized, because the level of employers' expectation of a female manager with a high level of human capital value with regard to conforming to the norm of the ideal

worker is higher. For example, employers expect that managerial and professional workers do overtime and prioritize their work over everything else (Fried 1998; Williams 2000; Blair-Loy 2003). A company's responsiveness to institutional pressure can determine harshness of penalty for use. Some characteristics of a company (e.g., size, presence of a labor union, and type of industry) affecting its reaction to the work-family norm brings about variation in the degree of family-hostility of its corporate culture. A company that is more open to a work-family balance norm tends to actively internalize the norm, and subsequently career penalties for the use of family-friendly programs are less harsh.

Moreover, the literature also reports that the level of penalty increases as the duration and frequency of leave increases. For example, for those who use the two long-term leave programs, maternity leave and childcare leave, in a row, the total duration of the two consecutive programs is up to 15 months. This is much longer than any other single program and is likely to draw an employer's attention in a negative way. Because using programs longer and more frequently equates with greater violation of workplace norms, the possibility of being penalized is be greater. By reinforcing employers' biased belief that 'family-friendly program users are not committed to work', repeated uses of family-friendly programs may cause employers to exclude users from important tasks or promotion, and they may hesitate to hire potential users – women – in the long-run (Mandel and Sahlev 2006).

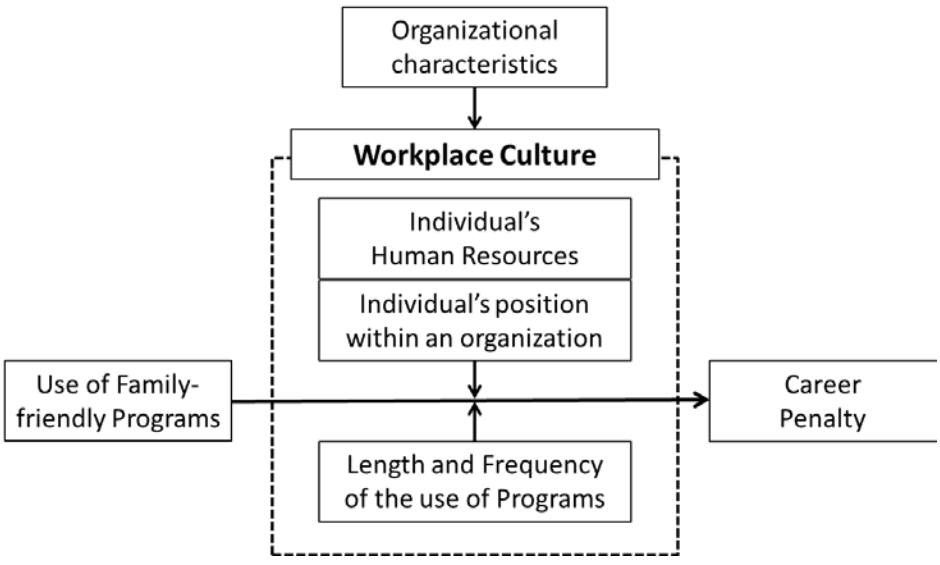
Second, employer's beliefs that employees' use of family-friendly programs is costly can have a negative impact on the user's career. When workers utilize family-friendly programs, not only do employers need to find alternate workers to fulfill the duties of those on leave, but also the cost of searching for and training them is high. To minimize their losses caused by the costs of searching for and training replacement employees, employers are likely to transfer the cost to

users, and in the end these negatively affect users' wages (Aisenbrey, Evertsson, and Grunow 2009; Ruhm 1998).

Finally, the occurrence of human capital depreciation while users are out of the workplace can adversely affect users' careers (Mincer and Polacheck 1974; Ruhm 1998). Since this human capital depreciation can negatively affect how a company values users' human capital, employers devalue their human capital, and subsequently career penalties can be imposed.

Figure 5.1 presents a theoretical frame for this chapter: the use of family-friendly programs causes penalties to users' careers, and workplace culture mediates the association between program use and penalties.

Figure 5.1Theoretical Framework for the Use of Family-Friendly Programs and Career Penalty



5.3 Variables and Descriptive Statistics

In this chapter two dependent variables are examined: whether or not wage growth happens in the two-year after the use of family-friendly programs and whether or not promotion occurs between the wave reporting use of a program and the following wave. Four independent variables are employed to test the effect of the use of long-term leave programs on wage growth and promotion: the use of either maternity or childcare leave, the use of maternity leave, the use of childcare leave, and the use of both programs. As control variables, two categories of variables that could affect respondents' career development are used (female manager's human capital value and organizational characteristics). The former category includes years of tenure, having a graduate school degree, rank, and occupation. The latter includes gender of immediate boss, respondent's assessment of her boss's gender neutrality, respondent's evaluation of the family-friendliness of her company, company size, presence of labor union, and company industry. Table 5.1 presents the descriptive statistics of variables used in the analyses.

For the first dependent variable, whether or not wage growth happens in the two-year after the use of family-friendly program (the number of person waves, N=4,437), 66.31% of the sampled female managers experienced wage growth. The second dependent variable, whether or not a manager is promoted between the wave reporting use of a program and the following wave (the number of person waves, N=4,884), 21.46% of the respondents were promoted. The KWMP asks respondents about whether they used maternity or childcare leave between the current wave and the previous wave, and there are two-year gaps between any two consecutive waves.

There are four independent variables with respect to the use of long-term leave programs: the use of either maternity or childcare leave, the use of maternity leave, the use of childcare

leave, and the use of both programs. The percentage of those who answered ‘yes’ are as follows: either maternity or childcare leave 9.58%, maternity leave 8.88%, childcare leave 4.53%, and both programs 3.26%.

Several variables that could affect female managers’ promotion and wage growth are controlled for. For human capital variables, years of tenure ranges from 0 to 40 years (Mean = 11.67 years; S.D. = 6.175). The percentage of respondents with at least one graduate school degree is 14.21. The percentage of respondents holding a low-ranking position (i.e., staff or an assistant manager) is 41.61%, and 58.39% are highly ranked. Professional or managerial workers comprise 42.73% of the sample, and 58.39% have a non-professional or managerial occupation.

For the variables of an individual’s status within an organization, 19.57% of the respondents work with a female immediate supervisor. The mean of eight questions about female managers’ evaluation of an immediate supervisor’s gender neutrality (M = 3.594) shows that their immediate supervisor is somewhat gender neutral (3= moderate and 4= somewhat agree with the statement; S.D. = .592; range: 1.25-5). Another nine questions measure female managers’ perception of the family-friendliness of the organization. The resulting mean of 2.966 means that the respondents think, on average, their organizations are somewhat family-hostile (S.D. = .688; range: 1-5).

The percentage of respondents that work at small-, medium-, and large-sized companies are 34.61%, 25.63%, and 38.76%, respectively. A labor union is present in 50.18% of the surveyed companies. Distribution of company industry is as follows: manufacturing 22.62%, wholesale/retail 5.93%, finance 24.78%, business service 29.64%, and other 17.03%.

Table 5.1 The Result of Descriptive Statistics on Variables

	Variable	Mean, Standard Deviation, and Range
Dependent variables	Whether or not wage increases (person-wave=4,437)	Wage increased (66.3%); No (33.6%)
	Whether or not promotion happens (person-wave=4,884)	Promoted (21.4%); No (78.5%)
Independent variables	Use of either maternity or childcare leave	Yes (9.5%); No (90.4%)
	Use of maternity leave	Yes (8.8%); No (91.1%)
	Use of childcare leave	Yes (4.5%); No (95.4%)
	Use of both programs	Yes (3.2%); No (96.7%)
Control Variables	Years of tenure	11.671; 6.175; 0-40
	Graduate school degree	Yes (14.2%); No (85.7%)
	Rank	Low (41.6%); high (58.3%)
	Occupation	Non-professional/managerial (57.2%); Professional/managerial (42.7%)
	Gender of immediate supervisor	Male (80.4%); Female (19.5%)
	Evaluation for rationality of immediate supervisor	3.594; .592; 1.25-5
	Evaluation for family-friendliness of organization	2.966; .688; 1-5
	Size of organization	Small (34.6%); medium (25.6%); large (39.7%)
	Labor union	Yes (49.8%); No (50.1%)
	Industry	Manufacturing (22.6%); Wholesale/retail (5.9%); Finance (24.7%); Business service (29.6%); Other industries (17.0%)

Note: For categorical variables, percentages are reported. Except for rounding error, percentages sum to 100%. For continuous variables, means, standard deviations and ranges are reported.

5.4 Results

The Effect of the Use of Long-Term Leave Programs on Wage Growth

The findings in Table 5.2 and Table 5.3 show that the use of long-term leave programs negatively affects wage growth in the two years following program use (Person-wave =4,437). The size of the coefficient varies by the length of time programs are used.

Model 1 to Model 3 in Table 5.2 presents the results for taking either a maternity or childcare leave, and they show negative effects on wage growth ($p<.001$). After controlling for other variables that possibly affect wage growth, in Model 3, the calculated odds of wage growth are .77 (exp(-.261) = 0.77), which means the odds of wage growth among users of either program is 77% of the odds among non-users. For interaction effects between the use of either program and industry, the findings show that wage growth after the use of either program is significantly less likely in the wholesale/retail industry than in the manufacturing industry ($b= -1.259$; $p<.05$) (omitted in Table 5.2).

Models 4 through 6 examine how the use of maternity leave impacts wage growth among female managers, and the findings reveal that taking maternity leave is likely decrease the chance of wage growth for two years. After adjusting for the influential variables affecting wage growth, the calculated odds ratio is .769 (exp(-.262) = .769) in Model 6. Interaction effects between the use of maternity leave and industry shows that wage growth after using maternity leave is less likely to happen in the wholesale/retail sector than in the manufacturing industry (omitted in Table 5.2).

The effect of using childcare leave on wage increase is tested in Model 7 through Model 9 in Table 5.3. The use of childcare leave negatively affects wage growth for the users, and its

magnitude is larger than in previous models, Model 4 Model 6. Given that the calculated odds ratio is (exp(-.477) = .620), the wage of the childcare leave user is 38% ($p<.01$) less likely to be increased.

Consecutive use of both maternity and childcare leave leads to the largest negative effect on wage growth, shown in Model 10 to Model 12. The wages of users who use both programs in a row is ($p<.05$) less likely to be increased, and the calculated odds are .600 (exp(-.510) = .600) after controlling for other wage-impacting variables. The probability of wage growth for these users is 40% less than their counterparts.

Models in Table 5.2 and Table 5.3 (Model 1 to Model 12) include variables that could affect female managers' wages; several variables of human capital value and organizational characteristics consistently affect promotion in a significant way across models, regardless of the use of long-term family-friendly programs. Being promoted has a positive influence on wage growth; years of tenure negatively impact it; and working in the financial industry adversely affects it.

Table 5.2 The Effect of the Use of Either Programs and Maternity Leave on Wage growth

	Either program			Maternity leave		
Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Type of used family-programs	-.286**	-.288**	-.261*	-.292**	-.290*	-.262*
	(.109)	(.109)	(.110)	(.113)	(.113)	(.113)
Promotion (promoted[a])		.220*	.221*		.221*	.222*
		(.093)	(.093)		(.093)	(.093)
Years of tenure		-.017**	-.014*		-.017**	-.014*
		(.006)	(.006)		(.006)	(.006)
Graduate school degree (No[a])		-.000	-.001		-.001	-.002
		(.099)	(.099)		(.099)	(.099)
Rank (Low rank[a])		.152*	.130		.149	.127
		(.077)	(.079)		(.077)	(.079)
Occupation (non-professional/managerial[a])		.074	.066		.073	.065
		(.068)	(.068)		(.068)	(.068)
Gender of immediate supervisor			-.090			-.091
			(.085)			(.085)
Immediate supervisor's rationality			.017			.015
			(.060)			(.060)
Family-friendliness of company			.029			.030
			(.053)			(.053)
Size of company (Ref. = large-sized)						
Small-sized			.023			.028
			(.103)			(.103)
Medium-sized			.184			.185
			(.103)			(.103)
Labor Union (No union)			-.129			-.131
			(.121)			(.121)
Industry (manufacturing)						
Wholesale/Retail			.052			.048
			(.178)			(.178)
Finance			-.234*			-.235*
			(.119)			(.118)
Business service			-.046			-.048
			(.111)			(.111)
Others			.109			.108
			(.155)			(.155)
Constant	.762***	.600***	.679**	.764***	.603***	.690**
	(.042)	(.064)	(.255)	(.042)	(.064)	(.255)
Person-wave	4437	4437	4437	4437	4437	4437

Note: 1) *** p<0.001, ** p<0.01, * p<0.05
2) Standard errors in parentheses
3) a reference category

Table 5.3 The Effect of the Use of Childcare leave and Both Programs on Wage growth

	Childcare leave			Both programs		
Variables	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Type of used family-programs	-.460**	-.481**	-.477**	-.503**	-.515**	-.510**
	(.165)	(.166)	(.166)	(.182)	(.183)	(.183)
Promotion (promoted[a])		.218*	.219*		.220*	.221*
		(.093)	(.093)		(.093)	(.093)
Years of tenure		-.017**	-.015*		-.017**	-.014*
		(.006)	(.006)		(.006)	(.006)
Graduate school degree (No[a])		.001	.001		.003	.001
		(.098)	(.099)		(.099)	(.099)
Rank (Low rank[a])		.154*	.131		.154*	.132
		(.078)	(.079)		(.077)	(.079)
Occupation (non-professional/managerial[a])		.069	.062		.068	.061
		(.068)	(.068)		(.068)	(.068)
Gender of immediate supervisor			-.086			-.087
			(.085)			(.085)
Immediate supervisor's rationality			.016			.017
			(.060)			(.060)
Family-friendliness of company			.029			.032
			(.053)			(.053)
Size of company (Ref. = large-sized)						
Small-sized			.033			.022
			(.104)			(.103)
Medium-sized			.188			.185
			(.103)			(.103)
Labor Union (No union)			-.124			-.122
			(.121)			(.121)
Industry (manufacturing)						
Wholesale/Retail			.062			.064
			(.177)			(.178)
Finance			-.240*			-.227
			(.119)			(.118)
Business service			-.043			-.035
			(.111)			(.110)
Others			.112			.122
			(.155)			(.154)
Constant	.764***	.602***	.679**	.749***	.588***	.659**
	(.044)	(.066)	(.256)	(.041)	(.063)	(.255)
Person-wave	4437	4437	4437	4437	4437	4437

Note: 1) *** p<0.001, ** p<0.01, * p<0.05
2) Standard errors in parentheses
3) a reference category

The Effect of the Use of Long-Term Leave Programs on Promotion

Findings in Table 5.4 and Table 5.5 show how using long-term family-friendly programs affects promotions of female managers within two years after she comes back to work (person-waves = 4,884). The use of long-term leave family-friendly programs does not have a statistically significant effect on female managers' promotions, at least for the duration of two years; these findings are incoherent with the findings of the previous studies that the use of long-term family-friendly programs negatively affects promotion.

Model 1 to Model 3in Table 5.4 examine the effect of using either maternity or childcare leave on female managers' promotions in the two years after use, and the findings show no statistically significant effect on promotion throughout models.[14] Model 4 through Model 6 examine the impact of using maternity leave on promotion, and the results do not show any statistically significant effect. Model 7 through Model 9 in Table 5.5 test how the use of childcare leave affects workers' promotions; similar to the findings in previous models, the effect of using childcare leave on promotion is not significant. Model 10 to Model 12 investigate the effect of using both maternity and childcare leave on promotion in the two years after use, and the effect is statistically insignificant.

According to the findings in Table 5.4 and Table 5.5, the use of long-term family-friendly programs does not have a statistically significant effect on promotion. However, this research investigates the effect of using family-friendly programs on promotion for only two years afterward, and the long-term effects are not known, which requires data with more waves.

14 Since the effects of main independent variables on promotion are statistically insignificant, testing interaction effects (i.e. the use of long-term leave program and industry) on promotion is omitted.

Table 5.4 and Table 5.5show other important factors affecting female managers' promotions, which are used as control variables. A variable of years of tenure negatively influences the probability of being promoted; a female manager with longer years of tenure is less likely to be promoted. A higher-ranking manager is more likely to be promoted than her counterpart with a low rank. Working with a female rather than a male supervisor positively impacts a female manager's likelihood of promotion. Belonging to a medium-sized, rather than a large-sized firm, increases the probability of promotion. However, compared to the manufacturing industry, a female manager working in other industries is less likely to be promoted.

Table 5.4 The Effect of the Use of Either Programs and Maternity Leave on Promotion

	Either program			Maternity leave		
Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Type of used family-programs	-.129	-.151	-.157	-.124	-.099	-.099
	(.125)	(.141)	(.141)	(.129)	(.146)	(.146)
Years of tenure		-.053***	-.048***		-.052***	-.048***
		(.007)	(.007)		(.007)	(.007)
Graduate school degree (No[a])		-.163	-.120		-.164	-.120
		(.110)	(.110)		(.110)	(.110)
Rank (Low rank[a])		7.264***	7.247***		7.262***	7.245***
		(1.002)	(1.002)		(1.002)	(1.002)
Occupation (non-professional/managerial[a])		.043	.039		.044	.039
		(.083)	(.083)		(.083)	(.083)
Gender of immediate supervisor			.282**			.281**
			(.106)			(.106)
Immediate supervisor's rationality			.129			.128
			(.076)			(.076)
Family-friendliness of company			-.120			-.120
			(.066)			(.066)
Size of company (Ref. = large-sized)						
Small-sized			-.074			-.073
			(.120)			(.120)
Medium-sized			.398***			.398***
			(.118)			(.118)
Labor Union (No union)			-.119			-.119
			(.143)			(.143)
Industry (manufacturing)						
Wholesale/Retail			.213			.214
			(.202)			(.202)
Finance			-.242			-.241
			(.145)			(.144)
Business service			-.146			-.147
			(.130)			(.130)
Others			-1.685***			-1.683***
			(.273)			(.272)
Constant	-1.353***	-7.792***	-8.063***	-1.353***	-7.795***	-8.066***
	(.049)	(1.002)	(1.049)	(.049)	(1.002)	(1.049)
Person-wave	4884	4884	4884	4884	4884	4884

Note: 1) *** p<.001, ** p<.01, * p<.05
2) Standard errors in parentheses
3) a reference category

Table 5.5 The Effect of the Use of Childcare leave and Both Programs on Promotion

	Childcare leave			Both programs		
Variables	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Type of used family-programs	-.162	-.318	-.328	-.158	-0.264	-0.256
	(.191)	(.212)	(.212)	(.210)	(.235)	(.235)
Years of tenure		-.052***	-.048***		-.053***	-.048***
		(.007)	(.007)		(.007)	(.007)
Graduate school degree (No[a])		-.159	-.121		-.164	-.121
		(.110)	(.110)		(.110)	(.110)
Rank (Low rank[a])		7.273***	7.253***		7.264***	7.247***
		(1.002)	(1.002)		(1.002)	(1.002)
Occupation (non-professional/managerial[a])		.041	.040		.042	.038
		(.083)	(.083)		(.083)	(.083)
Gender of immediate supervisor			.287**			.284**
			(.106)			(.106)
Immediate supervisor's rationality			.131			.129
			(.075)			(.076)
Family-friendliness of company			-.120			-.119
			(.066)			(.066)
Size of company (Ref. = large-sized)						
Small-sized			-.089			-0.075
			(.121)			(.120)
Medium-sized			.401***			.401***
			(.118)			(.118)
Labor Union (No union)			-.112			-.116
			(.143)			(.143)
Industry (manufacturing)						
Wholesale/Retail			.218			.215
			(.202)			(.202)
Finance			-.229			-.238
			(.145)			(.144)
Business service			-.138			-.145
			(.130)			(.130)
Others			-1.672***			-1.682***
			(.273)			(.273)
Constant	-1.332***	-7.817***	-8.091***	-1.360***	-7.798***	-8.073***
	(.051)	(1.003)	(1.049)	(.048)	(1.002)	(1.049)
Person-wave	4884	4884	4884	4884	4884	4884

Note: 1) *** p<.001, ** p<.01, * p<.05
2) Standard errors in parentheses
3) a reference category

5.5 Discussion and Conclusion

This chapter reveals that (1) the use of long-term leave programs negatively affects female managers' wage growth, (2) using long-term leave programs does not have a significant impact on female managers' promotion in the two-year period following program use, (3) various human capital factors and organizational factors influence female managers' career development.

First, the use of long-term leave programs has a negative impact on female managers' wage growth, and the likelihood of being penalized varies by the length of time a program is used (see Table 5.2). Despite only a two-year time gap between using long-term leave programs and occurrence of wage growth, this result explicitly shows that family-friendly program users are likely to encounter unanticipated consequences of using long-term family-friendly programs.

Previous studies provide possible explanations for this result: workplace culture and rational choice (the cost of leave incurred to employers and human capital depreciation). According to the norm of the ideal worker, a worker should be free from family responsibility and focus only on his/her tasks (Charlesworth and Baird 2007; Williams 2000). However, using family-friendly programs suggests that the user does not conform to the ideal worker norm and this makes employers, supervisors, and colleagues think the user is less devoted to workplace. Violation of the norm in a family-hostile workplace can be a reason on imposing career penalty.

On the company side, 'rational choice of the user's company' is a basis for penalties for the use of family friendly programs. Since employees' use of long-term leave programs is accompanied by unwanted costs incurred to the company, employers may transfer the cost to workers (Aisenbrey, Evertsson, and Grunow 2009). A company has to spend their resources on backing up a user's position or re-arranging a user's tasks, which is regarded as the cost of

family-friend programs. Moreover, taking a leave from the labor market during the program period, at least three months, results in depreciation of a worker's human capital (Mincer and Polacheck 1974), and thereby may negatively affect returnees' wages. Due to the unexpected cost on the company and depreciated human capital of the users, the employers of the users think users deserve non-increased (or decreased) wages and exclusion from promotion. Since an unexpected back-up cost for the user and depreciation of the user's human capital increases as the length of leave extends, the use of family-friendly programs for longer durations and more frequency can be associated with harsher penalty. Based on these explanations, Hofferth and Curtin (2006) argue that, by using leave-term leave programs, female managers/workers trade off their work conditions for decreased wage growth.

Unlike the finding of the negative impact of the use of long-term leave programs on wage growth, the use of long-term leave programs does not have a statistically significant impact on a female manager's promotion within the two years after use. As described above, this may result from the relatively short time measuring the relation between use and promotion. A majority of studies trace career changes for longer periods than two years after program use. For example, Aisenbrey, Evertsson, and Grunow (2009) trace the effect of maternity leave on job mobility for up to eight years after leave. Judiesch and Lyness (1999) follow participants over at least a three-year period, and in some cases, this is extended to five years. The long-term tracking may have been a factor for their more significant findings.

Moreover, compared to change in wages, promotions happen much less frequently. While wage growth usually occurs every year in reflecting inflation, it is rare that promotion happens every year or more than once over a short period of time. In addition, as Chang and Yang (2007) report, since women are less likely to be promoted (40% of male workers), it is harder to

examine the effects of leave programs on promotions of female employees, compared to males. Extended years of tracking participants after use may provide more accurate data related to the effects on user's promotions.

Finally, organizational factors as well as human capital characteristics significantly affect female managers' career development, and the findings are consistent with those of previous studies in Korea (Kim 2013; Kim 2017). They commonly report that level of education, years of tenure, and occupation are the human capital factors affecting change in wages, and the presence of labor union, company size, and industry are the organizational factors influencing employee's wages. Although the findings of this research on the determinants of female managers' income are not fully consistent with the literature, some variables listed in previous studies are confirmed. The empirical example of the 2015 annual report of the KWMP, which also examined the determinants of female managers' promotion, provides some clues about how organizational factors affect their career development. According to the report, female managers in companies with organizational cultures that emphasize horizontal relationships and are supportive of work-family balance are more likely to be promoted. The report confirms the importance of workplace culture in female employees' career development, as this research shows.

Chapter 6

The Effect of Use of Family-Friendly Programs on Fertility Intention

6.1. Introduction

During the second half of the 20th century South Korea experienced phenomenal economic growth and social change as well as rapid demographic transition. In 1970 less than half of the population lived in urban areas but in 2015 more than 80 percent were living in urban areas. By the beginning of the 21st century secondary education became universal for women. With these changes in economic conditions, urbanization, and a rise in the level of education for women, marriage and childbearing behavior of women changed dramatically as well. Total Fertility Rate (TFR) declined from 5.98 in 1960 to the replacement level of 2.06 in 1983 (Statistics Korea 2017). It has been argued that that during this period of rapid economic development and urbanization, a desire to improve living conditions by limiting family size had developed. In addition, efficient family planning programs which had been a part of national economic development plans since 1962 made it possible for married couples to control fertility behavior to match their ideals (Cho, Arnold, and Kwon 1982; Choe and Park 2006; Jun 2004; Lee and Choi 2015).

The TFR continued to decline to 1.3 in 2001 and 1.08 in 2005. Since then, the TFR has been fluctuating at around 1.2 (Statistics Korea 2017). Recent research on the very low level of fertility in Korea argue that the very low level of TFR in the late 1990s and thereafter is due mostly to increasing numbers of women delaying marriage and childbearing. And this delay in

marriage and childbearing is caused mainly by economic conditions such as increasing difficulty in securing stable employment for young adults, combined with the high cost of housing and the prospect of the high cost of children's education. In addition, young unmarried women, most of whom are in the labor force, were reluctant to enter marriages which will result in obligations to have children and difficulties in combining worker and mother roles (Kim 2005; Lee and Choi 2015). As a result, an increasing proportion of married women stop having children after one child (Choe and Retherford 2009) contributing to low levels of fertility. The main reasons for stopping childbearing after one child have been identified as the high cost of children's education and the difficulty for employed women to reconcile work and family life (Lee and Choi 2015).

Concerned over the implications of the fertility trend on declining labor force size, rapid population aging, and the increasing fiscal and social burdens of providing welfare benefits to the elderly, the government of South Korea began to put forth policies and programs designed to reverse the trend of declining fertility, beginning in 2003. The first comprehensive five-year Basic Plan for Aging Society and Population (2006-2010), named Saeromaji Plan I, and the second basic plan, Saeromaji Plan II (2011-2015) included policies and programs designed for promoting childbearing. Key policies and programs included economic and social support for childcare centers and improving the compatibility of work and family life through such measures as improved maternity leave, fostering family friendly social conditions, and fostering gender equity in the workplace (Lee and Choi 2015; Republic of Korea Committee on Low Fertility and Population Aging 2005, 2010, 2015).

After 10 years of ambitious and comprehensive plans to promote childbearing, period TFR remained at the lowest low level. Although availability of child care facilities were beginning to have some effects on the regional differences in progression to marriage and second

births, the overall trends toward later marriage, fewer marriages, and low progression ratios to second and higher order births have dominated since 2000 and kept fertility low (Choe and Kim 2014).

Most Korean married couples have one child or plan to have a child (Frejak, Jones and Sardon 2010; Shin 2008). In contrast, women who already have one child are not likely to have more (Shin 2008). Therefore, it is important to evaluate the adoption of family friendly policies and its effect on the intention to have second child, in order to establish the policies that can contribute to resolving low fertility issues (McDonald 2006). Nevertheless, despite extensive implementation of these policies and laws, there are only a limited number of studies investigating how family-friendly policies affect fertility outcomes in Korea, particularly the second or higher parity. Chung (2012) argues that there are few empirical studies that evaluate the effect of the policies on fertility, because of the recent history of policy adoption in Korea. He also notes that many studies only describe how total fertility rates or the number of newborn babies change after the implementation of the policies, but have not conducted empirical analysis testing the effect of the policies on fertility at the individual level.

To supplement the literature, this chapter aims to examine the effect of the family-friendly programs used by female managers on their fertility intention to have additional children after having the first child. The research questions are as follows: (1) Does using different family-friendly programs have different effects on fertility intention? (2) Does a program user's age make a difference in fertility intention? (3) How do the factors preventing individual use of family-friendly programs affect fertility intention?

6.2 Theoretical Perspectives

Common findings of previous studies in non-U.S. countries with low fertility show that family-friendly programs are positively related to fertility outcomes (Andersson 2008; Björklund 2006; Gauthier 2007; Rønsen and Skrede 2006). Generosity/flexibility of family-friendly programs is strongly connected to female labor participation, and countries with generous programs and high female labor force participation have relatively high fertility rates. Those countries are characterized by lower women's career interruptions after giving birth and greater financial stability for families with children (Gauthier 2007). The literature argues that the role of family-friendly programs in relieving burdens on women workers contributes to positive fertility outcomes, but negative experiences while out of the labor market, due to family-hostile workplace culture, cancel out the fertility-boosting effect of the use of family-friendly programs.

Based on this positive relationship, scholars emphasize the role of family-friendly programs in relieving burdens on women workers. Family-friendly programs lessen physical, psychological, and financial burdens, and opportunity costs of leaving a job. The literature also reports the effects of using a program varies by the characteristics of the program used (e.g., Gauthier 2007; Thevenon 2011). First, family-friendly programs reduce physical and psychological burdens on women employees (Kim 2017). During and after pregnancy, women experience emotional, psychological, and physical changes that may lead to deterioration of health, but family-friendly programs can give them an opportunity to recover their mental and physical health. In addition, after giving birth, women are likely to face conflicts between the roles of new mother and employee of a company (Blair-Loy 2003). Use of family-friendly, especially long-term, programs might give an opportunity for women employees to avoid or minimize this role conflict (Kim 2017).

Second, paid leave and financial support programs lower the financial burdens created by not working (Kim 2017). Since paid leave users get financial support from the state and/or company, taking a leave does not mean loss of total income; the allowance can be one of sources of financial support for childcare. Cash benefits for having a child, such as family allowances, tax exemptions, and allowances for paid leave, reduce the financial opportunity cost of having a child, and likely positively affect fertility intention.

Third, the job-protected leaves that guarantee the return of the users to their original positions with the same employers decrease the opportunity cost of childbearing and taking a leave (Lee, Ogawa, and Matsukura 2009). The job protection of laws prevents depreciation of human capital value and job loss. This condition allows female employees to keep developing their careers after using leave programs (Risse 2006), and thus, those women employees who benefit from family-friendly programs with job protection are more likely to have second or higher parity children without career disruption than are others without the benefits.

In contrast, other factors that can be related to workplace culture that negatively affects an individual's experiences during a leave period offset the positive effects of the use of family-friendly programs on fertility intention. Chapter 5 reports that the users of long-term leave programs face the possibility of career penalties after returning to the workplace and that this varies by the length of leave. First, companies expect higher-ranking employees to be more responsible for their tasks and to show greater commitment to the company based on the ideal worker norm (Blair-Loy 2003), and in response to their expectation, an employee tends not to use family-friendly programs. Second, because small companies tend to face lower levels of pressure of social norm about of work-family balance (Blair-Loy and Wharton 2002) and less often adopt family-friendly programs, working at a small company would negatively affect an

individual's use of a family-friendly program. Lastly, working at a public enterprise, foreign company, or joint venture with foreign companies is likely to positively affect women employees' family-friendly program-related experiences. Public companies directly influenced by central and local governments are likely to adopt and implement the family-friendly programs, because of the pressure of the government (DiMaggio and Powell 1983; Baek and Kelly 2014). Foreign companies or joint ventures with foreign companies are likely to be also sensitive to work-family balance norm, because of the influence of their mother companies, which has more family-friendly foreign cultures (Baek, Kelly and Jang 2012). In contrast, since domestic-private companies encounter less pressure compared to the companies above, working at a domestic-private company is less likely to be connected to the use of family-friendly programs.

The possibility and/or experiences of career penalty and low accessibility to programs influenced by a family-hostile workplace culture prevent the use of family-friendly programs, and thereby an employee's future fertility intention is more likely to diminish. As Goldthorpe (2000) argues, the decision to have a child depends on whether benefits from using programs are enough; only when an individual perceives the benefits of family-friendly programs meet her expectation, is she willing to have additional children after having the first child. In other words, if women employee's workplace culture negatively affects her experiences, her plan to have more children after having one child can change.

The level of burden on a user's company can bring about differentials in fertility intention to have second or higher parity children. When an employee takes a long-term leave, the employer has to find a substitute for the user and train a new employee, and the company regards this process as a cost of allowing long-term leave programs (Aisenbrey, Evertsson, and Grunow

2009). Consequently, in a family-hostile workplace culture, the employer tends to penalize the user and transfer the cost to the user. In contrast, burdens of financial support programs on a company are smaller than for other programs, which can increase employees' accessibility to financial support programs. The users of financial support programs tend to keep working on-site without leaving, and a company simply needs to support the users with financial resources. Not only can a company save the cost of searching for/hiring substitutes for the leave-user and training expenses, but it also gets the same level of employee performance. These smaller financial burdens on a company can be connected to improved accessibility and relatively lower levels of negative experiences for financial support program users.

Finally, the effects of use of family-friendly programs on fertility intention can vary by employee's personal characteristics, such as age. Age is the most critical factor associated with fertility intention. For so-called prime childbearing age women (25-34), given cultural norms for childbearing and biological issues closely connected to infertility and risky pregnancies, by actively using family-friendly programs, users aim to avoid childbirth at a later age, and instead focus on career development (Kalwij 2010). Because these factors are likely to be positively related to fertility intention and the possibility of pregnancy, the effectiveness of family-friendly policies on this age group can be larger than for other age groups. In contrast, since the older group (aged 35 or older) is less likely to become pregnant, due to the association of increasing age with the possibility of infertility, a woman manager in the older group is less likely to intend to have additional children after having the first child. This situation does not lead to significant variation in the effect of education on fertility intention.

6.3 Variables and Descriptive Statistics

The dependent variable of this chapter is the respondent's self-reported fertility intention to have more children after the first child. Each category of family-friendly programs used by female managers is used as independent variables (one of any of the family-friendly programs, long-term leave programs, financial support programs, and flexibility programs). Some variables that could affect an individual's fertility intention are controlled for: age, level of education, age of the first child, and personal income. Additionally, year and several variables affecting female manager's use of family-friendly programs are controlled for (rank, size of the company, and its type).

Since this chapter intends to examine the effects of family-friendly programs on female managers' fertility intentions for the second or higher parity, only those with one child are selected. Women who are not of childbearing age (over 45) are also excluded. There are 1,227 analyzable person-waves, and in actual analysis mean-imputation is employed to prevent loss of observations.

Table 6.1 shows descriptive statistics of variables used in this chapter, and the reported percentages are calculated based on 1,227 person-waves. For the dependent variable — fertility intention to have more children after the first child, of 1,227 person-waves, 38.43% answer that they are willing to have a second child or higher parity in the future, and 61.57% are not. For independent variables, of 1,227 person-waves, 39.44% responded that they used at least one of any of the family-friendly programs; 61.49% of the respondents used either maternity or childcare leave; 36.50% used maternity leave; 18.71% used childcare leave; 13.91% of the respondents used both maternity and childcare leave one after the other.

Table 6.1 Descriptive Analysis of Variables

	Variables	Mean, Standard Deviation, and Range
Dependent variable	Fertility intention to have more children after the first child	Yes (38.43%); No (61.57%)
Independent variables	Use of at least one of programs	Yes (39.44%); No (60.56%)
	Either maternity or childcare leave program use	Yes (61.49%); No (38.51%)
	Maternity leave use	Yes (36.50%); No (63.50%)
	Childcare leave use	Yes (18.71%); No (81.29%)
	Use both maternity and childcare leave in a row	Yes (13.91%); No (86.09%)
Control variables	Age	34.708; 4.151; 22-45
	Graduate school degree	Yes (15.88%); No (84.12%)
	Personal income	365.923; 381.645; 0.1-10,000
	Age of the first child	0-7 (54.56%); over 7 (45.44%)
	Survey year	2007 (42.40%); 2008 (4.73%); 2010 (7.39%); 2012 (17.31%); 2014 (31.17%)
	Rank	Low (47.80%); High (52.20%)
	Size of company	1-299 employees (35.39%); 300 or more (64.61%)
	Type of company	Private-domestic (91.13%); Foreign, public, or joint-venture (8.87%)

Note: For categorical variables, percentages are reported. Except for rounding error, percentages sum to 100%. For continuous variables, means, standard deviations and ranges are reported. Reported numbers are calculated based on 1,227 person-waves.

In terms of socio-demographic variables that could affect fertility, the mean of respondents' ages is 34.708 (S.D. = 4.151) and ranges from 22-45. Relatively large numbers of the respondents have a graduate school degree (15.88%). Monthly personal income (before tax) is widely distributed, and its mean is 3,659 thousand KRW. 54.56% of the respondents have a 0-7 year old first child. Survey year controlling for the effect of macro-economic conditions on fertility is distributed as follows: 2007 42.40%, 2008 4.73%, 2010 7.39%, 2012 17.31% and 2014 31.17%. Because the number of observations in the years 2008 and 2010 are relatively smaller than other years, it seems to need more closely investigating, but it is possible that long-term leave program users were excluded from surveys while they were out of the workplace using programs.

For variables preventing female managers' family-friendly program use, 47.80% of the respondents are low-ranking mangers (reference category), 35.39% of female managers work at a small company (1-299 employees; reference category), and a majority of the respondents work at a private-domestic company (91.3%; reference category).

6.4. Results

Table 6.2 shows the results of fertility intention among respondents between the ages 22 and 45. Fertility intention is contingent on the program used. Model 1 only includes the control variables that may affect a female manager's fertility intention. Considering both individual age and its square, increasing age negatively affects fertility intention. Given the change of probability of fertility intention by age, it is inverse U-shaped and peaks at a female manager's age of 28. Then, the calculated probability to have more children after the first child becomes negative when a

female manager becomes 31-year-old. This means that they may want to finish childbearing behavior in their early career stage and then move on to focus on career development (Kalwij 2010). Education (holding a graduate school degree) and personal income do not have a significant effect on fertility intention. In contrast, having a child in elementary school (8-years-old or older) has a negative effect on having additional children, compared to a female individual who has a child under the age of one. Finally, respondents surveyed in 2012 were less likely to have more than one child than respondents in 2007. The effects of all control variables are consistent throughout all models.

Model 2 to Model 5 test an effect of each category of family-friendly program on fertility intention for additional children among Korean managers with one child. Model 2 tests the effect of using one of any of the family-friendly programs and shows a female manager who uses any of the programs is more likely to have more children, compared to non-users. Using one of any long leave programs, in Model 3, positively affects fertility intention. In contrast, financial support programs and flexibility programs are not significant.

Model 6 to Model 11 focus on the effect of each program on fertility intention independent from other programs; the positive effect of maternity leave on fertility intention remains stable. Given change of the calculated odds, one interesting finding is that combined use of maternity leave and childcare leave (2.25) has a larger positive effect on fertility intention than other options (e.g., the calculated odds of using only maternity leave is 2.04). This is a small change, but can be a big impact on the increase in fertility intention. After controlling for other family-related variables in Model 12 and Model 13, using maternity leave only positively affects fertility intention.

Table 6.2 The Results of Fertility Intention Among Respondents Age 22-45

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Age	1.757**	1.819**	1.773**	1.738**	1.766**	1.763**	1.837**	1.780**	1.790**	1.752**	1.760**	1.811**	1.963**
	(.613)	(.614)	(.605)	(.616)	(.619)	(.613)	(.626)	(.621)	(.631)	(.610)	(.613)	(.628)	(.660)
Age squared	-.032***	-.33***	-.032***	-.031***	-.032***	-.032***	-.033***	-.032***	-.032***	-.032***	-.032***	-.033***	-.035***
	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.010)	(.009)	(.009)	(.010)	(.010)
Graduate school (no[a])	.299	.291	.278	.310	.294	.286	.278	.304	.304	.302	.295	.313	.286
	(.372)	(.371)	(.366)	(.374)	(.374)	(.369)	(.379)	(.376)	(.383)	(.370)	(.372)	(.378)	(.390)
Personal income	-.139	-.150	-.116	-.109	-.135	-.086	-.120	-.150	-.156	-.143	-.116	-.146	-.148
	(.205)	(.206)	(.202)	(.206)	(.206)	(.204)	(.209)	(.209)	(.212)	(.204)	(.206)	(.210)	(.217)
Age of the first child	1.275***	1.181***	1.056**	1.239***	1.278***	1.030**	1.118***	1.302***	1.346***	1.252***	1.253***	1.263***	1.115**
	(.327)	(.326)	(.326)	(.326)	(.328)	(.327)	(.336)	(.341)	(.348)	(.325)	(.327)	(.331)	(.352)
Year(2007[a])													
2008	.300	.239	.151	.214	.306	.080	.150	.318	.327	.278	.248	.286	.130
	(.572)	(.571)	(.566)	(.576)	(.574)	(.571)	(.583)	(.579)	(.590)	(.568)	(.573)	(.581)	(.601)
2010	.738	.611	.510	.709	.742	.492	.528	.756	.775	.772	.733	.713	.585
	(.584)	(.583)	(.579)	(.585)	(.587)	(.582)	(.594)	(.595)	(.604)	(.583)	(.584)	(.592)	(.614)
2012	-.642	-.724	-.702	-.599	-.670	-.683	-.719	-.653	-.662	-.577	-.604	-.699	-.694
	(.379)	(.384)	(.379)	(.379)	(.387)	(.387)	(.391)	(.394)	(.391)	(.379)	(.379)	(.387)	(.418)
2014	-.708	-.696	-.571	-.670	-.736	-.562	-.580	-.729	-.721	-.641	-.691	-.738	-.505
	(.397)	(.395)	(.393)	(.398)	(.405)	(.401)	(.407)	(.409)	(.408)	(.399)	(.397)	(.404)	(.436)

Table 6.2 (continued) The Results of Fertility Intention Among Respondents Age 22-45

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Any Program		.517											
		(.276)											
Any long-term leave program			.653*			.637*							
			(.279)			(.281)							
Financial support				-.620		-.574							
				(.405)		(.399)							
Any flexibility program					0.194	.148							.211
					(0.464)	(.457)							(.482)
Maternity leave							.630*						.945**
							(.291)						(.361)
Childcare leave								-.117					.486
								(.355)					(.819)
Maternity & Childcare leave									-.196				-1.223
									(.376)				(.921)
Childcare facility										.226			.204
										(1.076)			(1.122)
Child subsidy											-.375		-.063
											(.491)		(.526)
Tuition subsidy												-.910	-.926
												(.660)	(.695)
Constant	-23.864*	-25.355*	-24.692*	-23.447*	-24.001*	-24.404*	-25.605*	-24.179*	-24.260*	-24.302*	-23.923*	-24.433*	-28.034*
	(10.133)	(10.181)	(10.031)	(10.190)	(10.230)	(10.161)	(10.373)	(10.252)	(10.417)	(10.121)	(10.132)	(10.368)	(10.939)
Person-wave	1227	1227	1227	1227	1227	1227	1227	1227	1227	1227	1227	1227	1227

Note: 1) *** p<.001, ** p<.01, * p<.05; 2) Standard errors in parentheses; 3) a reference category

Table 6.3 focuses on the change of effects of variables that have a positive effect on fertility intention in Table 6.2 by adding the variables that obstruct the use of family-friendly programs. There is no significant effect of organization-driven impediments on fertility intention. The effect of control variables remains unchanged throughout the models. After adjusting for the use-hindering variables, the positive effects of using any of the programs, any long leave program, and maternity on fertility intention remain unchanged. This means that, despite hindrances associated with organizational factors, using family-friendly programs has a positive effect on fertility intention. Rather than the effect of the workplace the individual belongs to, direct personal experience related to the use of family-friendly programs matters more in fertility intention. However, despite small changes, we see decreases in fertility intention when obstructions are included in models. Individual experience matters more, but there is a way that organization-related factors can boost fertility intention.

Table 6.4 presents the results of the effect of family-friendly programs on fertility intention of our sub-sample: 25-34 year-old female managers. Similar to the results presented in Table 6.2, using one of any of the family-friendly programs, using any long leave program, and use of maternity leave positively affect fertility intention. One distinctive feature of this prime childbearing age group is the size of the coefficients is larger than what was presented in Table 6.2. This means that when female managers between the ages of 22-34 use family-friendly programs, the effect on fertility intention is larger than on female mangers in aggregate.

Table 6.3 The Results of Fertility Intention among Respondents Age 22-45 with Organization-Driven Obstructions

VARIABLES	Model 1	Model 2	Model 3	Model 4
Age	1.823**	1.788**	1.844**	1.799**
	(.620)	(.614)	(.635)	(.638)
Age squared	-.033***	-.032***	-.033***	-.032***
	(.009)	(.009)	(.010)	(0.010)
Graduate school (0=no)	.343	.326	.325	.366
	(.374)	(.370)	(.383)	(.387)
Personal income	-.083	-.048	-.052	-.085
	(.206)	(.204)	(.211)	(.213)
Age of the first child	1.166***	1.056**	1.125***	1.328***
	(.326)	(.328)	(.338)	(.348)
Year (ref=2007)				
2008	.083	.024	.012	.160
	(.577)	(.574)	(.592)	(.598)
2010	.534	.439	.442	.667
	(.590)	(.588)	(.604)	(.613)
2012	-.765	-.768	-.823	-.784
	(.493)	(.492)	(.510)	(.509)
2014	-.699	-.609	-.658	-.780
	(.463)	(.460)	(.477)	(.479)
Any Program	.530			
	(.276)			
Any long leave program		.638*		
		(.281)		
Maternity leave			.601*	
			(.294)	
Maternity & Childcare leave				-.150
				(.376)
Ranking (0 = Staff or assi manager)	-.157	-.189	-.178	-.199
	(.305)	(.302)	(.312)	(.315)
Small sized company (1-299 employees)	.415	.402	.409	.374
	(.288)	(.284)	(.294)	(.296)
Company type (0 = Private demstic)	-.619	-.551	-.613	-.683
	(.472)	(.468)	(.486)	(.491)
Constant	-25.457*	-24.988*	-25.740*	-24.431*
	(10.296)	(10.212)	(10.565)	(10.581)
Person-wave	1227	1227	1227	1227

Note: 1) *** p<.001, ** p<.01, * p<.05; 2) Standard errors in parentheses; 3) [a] reference category

Table 6.4 The Results of Fertility Intention Among Respondents Age 25-34

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Age	-1.344	-.844	-1.016	-1.453	-1.324	-1.084	-1.178	-1.326	-1.402	-1.450	-1.415	-1.379	-1.304
	(2.277)	(2.146)	(2.032)	(2.302)	(2.283)	(2.062)	(2.173)	(2.250)	(2.385)	(2.281)	(2.279)	(2.290)	(2.189)
Age squared	.018	.011	.014	.020	.018	.015	.016	.018	.019	.020	.020	.019	.019
	(.037)	(.034)	(.033)	(.037)	(.037)	(.033)	(.035)	(.036)	(.038)	(.037)	(.037)	(.037)	(.035)
Graduate school (no[a])	.006	-.035	-.069	.008	.001	-.070	-.063	-.006	.003	.015	-.009	.042	-.065
	(.461)	(.440)	(.416)	(.461)	(.469)	(.421)	(.443)	(.455)	(.484)	(.458)	(.461)	(.467)	(.447)
Personal income	.072	.045	.078	.086	.082	.091	.083	.077	.068	.058	.088	.071	.053
	(.212)	(.203)	(.191)	(.213)	(.216)	(.196)	(.204)	(.210)	(.222)	(.210)	(.214)	(.215)	(.206)
Age of the first child	.973*	.795*	.662	.951*	.985*	.659	.756	.963*	1.071*	.944*	.954*	.966*	.710
	(.408)	(.381)	(.362)	(.406)	(.414)	(.366)	(.394)	(.418)	(.455)	(.404)	(.406)	(.412)	(.399)
Year (ref=2007)													
2008	-.214	-.293	-.323	-.255	-.211	-.345	-.335	-.212	-.193	-.227	-.251	-.212	-.292
	(.577)	(.555)	(.525)	(.582)	(.587)	(.535)	(.559)	(.574)	(.608)	(.574)	(.580)	(.583)	(.561)
2010	.399	.165	.134	.398	.403	.139	.175	.407	.445	.427	.403	.392	.200
	(.644)	(.614)	(.581)	(.645)	(.655)	(.589)	(.618)	(.642)	(.682)	(.642)	(.643)	(.650)	(.624)
2012	-.344	-.479	-.378	-.310	-.410	-.388	-.381	-.288	-.359	-.242	-.302	-.389	-.395
	(.461)	(.458)	(.425)	(.463)	(.491)	(.448)	(.454)	(.465)	(0.487)	(0.461)	(.462)	(.472)	(.491)
2014	-.979	-.964	-.799	-.962	-1.022	-.811	-.831	-.930	-.985	-.873	-.964	-1.004	-.700
	(.547)	(.526)	(.492)	(.546)	(.563)	(.504)	(.523)	(.544)	(.569)	(.544)	(.545)	(.553)	(.534)

Table 6.4 (Continued) The Results of Fertility Intention Among Respondents Age 25-34

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Any Program		.863*											
		(.365)											
Any long-term			.757*			.748*							
leave program			(.318)			(.320)							
Financial support				-.330		-.211							
				(.501)		(.456)							
Any flexibility program					.329	.158							.354
					(.660)	(.590)							(.641)
Maternity leave							.690*						.974*
							(.327)						(.401)
Childcare leave								.023					1.767
								(.406)					(1.271)
Maternity &									-.218				-2.386
Childcare leave									(.444)				(1.398)
Childcare facility										-.385			-.484
										(1.358)			(1.343)
Child subsidy											-.317		.097
											(.601)		(.620)
Tuition subsidy												-.616	-.526
												(.832)	(.874)
Constant	23.995	15.194	17.832	25.729	23.751	18.966	20.532	23.659	25.082	25.032	25.103	24.679	21.806
	(35.423)	(33.318)	(31.561)	(35.820)	(35.507)	(32.045)	(33.767)	(35.005)	(37.101)	(35.452)	(35.472)	(35.630)	(33.971)
Person-wave	631	631	631	631	631	631	631	631	631	631	631	631	631

Note: 1) *** p<0.001, ** p<0.01, * p<0.05; 2) Standard errors in parentheses ;3) [a] reference category

Table 6.5 shows how the positive effect of family-friendly programs on fertility intention varies when organization-driven obstructions are controlled for among respondents age 25-34. The result is similar to the results presented in the Table 6.3, but Model 4 shows that both maternity and childcare leave is not significant for fertility intention ($p<.1$). In Model 6, use of maternity leave loses its statistical significance on fertility leave when the use of other programs is controlled for ($p<.1$).

Table 6.6 presents the effect of the use of family-friendly programs on fertility intention of women 35 years of age or older. Among control variables, only the age of the first child has a statistically negative impact on fertility intention and all other family-friendly program-related variables are not significant with respect to fertility intention.

Table 6.5 The Results of Fertility Intention Among Respondents Age 25-34 with Organization-Driven Obstructions

VARIABLES	Model 1	Model 2	Model 3	Model 4
Age	-.897	-1.103	-1.278	-1.463
	(2.209)	(2.101)	(2.227)	(2.437)
Age squared	.012	.016	.018	.021
	(.036)	(.034)	(.036)	(.039)
Graduate school (0=no)	-.035	-.077	-.081	.003
	(.455)	(.434)	(.465)	(.499)
Personal income	.099	.129	.138	.128
	(.211)	(.201)	(.215)	(.231)
Age of the first child	.847*	.718	.825*	1.118*
	(.394)	(.379)	(.413)	(.466)
Year (ref=2007)				
2008	-.441	-.433	-.469	-.372
	(.584)	(.555)	(.595)	(.639)
2010	-.052	-.082	-.082	.136
	(.634)	(.604)	(.645)	(.696)
2012	-.871	-.813	-.906	-.930
	(.654)	(.626)	(.683)	(.713)
2014	-1.399*	-1.287*	-1.403*	-1.585*
	(.673)	(.641)	(.690)	(.742)
Any Program	.830*			
	(.368)			
Any long leave program		.739*		
		(.326)		
Maternity leave			.677*	
			(.339)	
Maternity & Childcare leave				-.196
				(.454)
Ranking (0 = Staff or assistant manager)	-.136	-.209	-.209	-.236
	(.354)	(.336)	(.360)	(.389)
Small sized company (1-299 employees)	.257	.199	.205	.194
	(.345)	(.324)	(.346)	(.376)
Company type (0 = Private domestic)	-.783	-.677	-.778	-.959
	(.547)	(.519)	(.562)	(.610)
Constant	15.987	19.038	21.964	25.880
	(34.279)	(32.603)	(34.576)	(37.886)
Person-wave	631	631	631	631

Note: 1) *** p<.001, ** p<.01, * p<.05; 2) Standard errors in parentheses; 3) [a] reference category

Table 6.6 The Results of Fertility Intention of Women 35 Years of Age or Older

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Age	.619	.639	.611	0.761	.611	.741	.765	.229	.781	.774	.658	.562	.336
	(4.055)	(4.126)	(4.070)	(4.140)	(4.063)	(4.131)	(4.104)	(4.077)	(4.057)	(4.083)	(4.120)	(4.191)	(4.169)
Age squared	-.019	-.019	-.019	-.021	-.019	-.021	-.021	-.014	-.021	-.021	-.020	-.018	-.016
	(.053)	(.054)	(.053)	(.054)	(.053)	(.054)	(.054)	(.053)	(.053)	(.053)	(.054)	(.055)	(.055)
Graduate school (0=no)	.994	.992	.999	1.040	.975	1.030	1.051	1.051	1.049	.975	1.032	.912	1.039
	(.671)	(.670)	(.674)	(.675)	(.670)	(.677)	(.677)	(.677)	(.676)	(.670)	(.673)	(.680)	(.704)
Personal income	-1.409	-1.376	-1.409	-1.259	-1.394	-1.247	-1.515	-1.684*	-1.517	-1.384	-1.288	-1.634*	-1.662
	(.776)	(.770)	(.777)	(.751)	(.771)	(.748)	(.792)	(.821)	(.791)	(.780)	(.763)	(.831)	(.861)
Age of the first child	1.710**	1.772**	1.679*	1.653*	1.722**	1.619*	1.656*	1.801*	1.676*	1.702*	1.698*	1.762**	1.800*
	(.662)	(.676)	(.727)	(.658)	(.662)	(.724)	(.711)	(.701)	(.681)	(.664)	(.666)	(.678)	(.764)
Year (ref=2007)													
2008	4.089	4.071	4.084	3.872	4.074	3.849	4.025	3.870	4.031	4.070	3.937	4.194	3.725
	(2.763)	(2.749)	(2.770)	(2.752)	(2.746)	(2.746)	(2.753)	(2.700)	(2.746)	(2.758)	(2.750)	(2.878)	(2.807)
2010	1.523	1.588	1.508	1.373	1.514	1.340	1.431	1.274	1.437	1.591	1.423	1.430	1.183
	(1.510)	(1.521)	(1.519)	(1.501)	(1.503)	(1.503)	(1.506)	(1.506)	(1.504)	(1.518)	(1.504)	(1.533)	(1.541)
2012	-.607	-.566	-.616	-.591	-.627	-.624	-.641	-1.071	-.638	-.565	-.599	-.682	-1.054
	(.725)	(.728)	(.732)	(.726)	(.724)	(.733)	(.730)	(.780)	(.732)	(.728)	(.725)	(.736)	(.805)
2014	-.032	-.035	-.023	-.027	-.073	-.053	-.071	-.504	-.084	-.021	-.054	-.078	-.483
	(.638)	(.639)	(.646)	(.641)	(.648)	(.659)	(.652)	(.679)	(.638)	(.646)	(.639)	(.649)	(.731)

Table 6.6 (continued) The results of fertility intention of women 35 years of age or older

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Any Program		-.263											
		(.523)											
Any long-term leave program			.066			.100							
			(.652)			(.654)							
Financial support				-1.125		-1.126							
				(.756)		(.755)							
Any flexibility program					.242	.234							.094
					(.762)	(.765)							(.785)
Maternity leave							.062						.297
							(.662)						(.873)
Childcare leave								-.212					-.395
								(.741)					(1.382)
Maternity & Childcare leave									.024				-.025
									(.809)				(1.712)
Childcare facility										1.850			1.816
										(1.794)			(1.828)
Child subsidy											-.989		-.909
											(.988)		(1.019)
Tuition subsidy												-1.127	-.975
												(1.207)	(1.227)
Constant	-.179	-.399	-.026	-2.540	-.091	-2.247	-3.125	7.714	-3.429	-3.649	-.709	1.566	5.523
	(77.315)	(78.644)	(77.589)	(78.851)	(77.458)	(78.675)	(78.215)	(77.760)	(77.307)	(77.836)	(78.509)	(79.881)	(79.467)
Person-wave	552	552	552	552	552	552	552	552	552	552	552	552	552

Note: 1) *** p<.001, ** p<.01, * p<.05; 2) Standard errors in parentheses; 3) [a] reference category

6.5 Discussion and Conclusion

This chapter shows that using some family-friendly programs, but not all, positively affects the intention to have more children after the first child among Korean women managers. A woman manager who has ever used even one of the family-friendly programs, any long leave program, or maternity leave is more likely to intend to have second or higher parity children. Moreover, the type of program and user's age lead to differentials in the effect of family-friendly programs on fertility intention for the parity two or higher.

According to previous studies, in general, both maternity and childcare leave have a positive effect on childbirth-related variables (e.g., conception, fertility rate, the timing of births, and parity) (e.g, Gauthier 2007). However, the findings of this research indicates that while using maternity leave positively affects fertility intention, childcare leave has no significant effect on fertility intention. With respect to maternity leave the result shows that the maternity leave user is more likely to intend to have another child. Both the low level of stigma against the use of maternity leave and the favorable perceptions of it enable women managers to have good experiences with it. Compared to childcare leave, since maternity leave is shorter, employers' perception of maternity leave is not as negative as long-term childcare leave (Yoon and Hong 2014; Won 2005). In addition, new mothers regard maternity leave as a requirement to recovery and a good opportunity to build up intimacy with a newborn baby. Lee et al. (2010) argue that since protective effects of maternity leave prevents medical problems that can occur during childbearing and postpartum care, it positively affects likelihood of future childbirth.

Contrary to the findings of previous studies, childcare leave does not have a significant effect on fertility intention. To understand this result, we need to look at its unanticipated

consequences and its relatively small benefits, the stress associated with searching for quality childcare during the period of childcare leave in the Korean context. The negative experiences when users go back to the workplace, because of family-hostile workplace culture, offsets the positive effect of childcare leave on fertility intention (Lee et al. 2004; see the result of Chapter 5 of this dissertation). Many studies report that when women employees come back to the workplace after using long-term childcare leave, they experience explicit and/or implicit discrimination in their career (e.g., risk of dismissal, exclusion from promotion and wage increase, change of atmosphere) commonly known as the motherhood penalty (Budig and England 2001) or flexibility stigma (Williams, Blair-Loy, and Berdahl 2013). As a result, women managers who recognize the negative influences of the use of childcare leave on career may decide not to have another child, because they want to avoid experiencing discrimination against maternity and leaving the labor market; even if they have a second child, they choose to use only maternity leave and to return to the workplace. Many studies conducted in the Korean context report similar results (e.g., Min 2010; Kim 2006; Lee et al. 2004). Because of the reality that the sides effects of the use of childcare leave exceed the benefit of childcare, its use cannot be connected to fertility intention for another child. Even though they do not experience explicit discrimination against long-term leave users, they would develop fear of discrimination and negative reactions. Consequently, these negative perceptions cause users to choose not to have more children after the first child.

Second, limited benefits of childcare leave hinder the connection between childcare leave and fertility (Kim and An 2016). The benefits of childcare leave for the beneficiaries in Korea are not only smaller than for other industrialized countries (OECD 2015), but also cannot meet their expectations. As focusing on the amount of wage compensation during the period of

childcare leave, before September 1, 2017, childcare leave users only received 40% of their regular monthly wages (maximum 1,000,000 KRW; minimum 500,000 KRW).[15] Despite the expansion of the childcare leave benefit, the amount is still small, and for the sample of this study that earns a relatively higher income, using childcare leave is directly related to loss of income, decreasing likelihood of future childbirth and reuse of childcare leave.

Finally, insufficient provision of childcare facilities may prevent fertility intention. Because of a lack of reliable childcare facilities and the unsatisfying quality of extant ones, mothers with an infant and a toddler have to spend much time and energy on searching for adequate childcare suppliers. If they fail to find them, they may choose to take care of young children themselves, rather than sending them to unreliable childcare service providers (Park and Kim 2008; Hong et al. 2010). Consequently, the difficulty and strain of providing high quality childcare may prevent them from wanting to have additional children after the first one.

Table 6.4 and 6.5 show the larger impacts of maternity leave on fertility intention among women in the so-called "prime" childbearing age (25-34). Given the age of college graduation and first marriage for Korean women, it seems that those who are in that age group are more likely to have children, and if conditions meet their expectations, they are more likely to have a second child. This is because a perception that the physical capacity to get pregnant is optimal during the prime childbearing age positively affects fertility intention (Lee et al. 2010). Moreover, as Kalwij (2010) suggests, due to career aspiration, they want to complete childbearing early on their career paths, and then move back to the workplace. Using this stable

15 From September 1, 2017, the wage compensation increased; from the first month to fourth month, the beneficiary receives 80% of monthly wage (maximum 1,500,000 KRW; minimum 700,000 KRW), and then she/he can receive 40% of monthly wage (maximum 1000000 KRW; minimum 500,000 KRW)

income, mothers tend to focus on their career development by outsourcing childcare and consuming private education.

Table 6.3 and 6.5 include variables that measure family-hostile workplace culture that prevents women managers from using family-friendly programs. Despite the obstructing effect of those variables on program use (e.g., individual's rank in an organization and the size and type of company), female managers who use those programs are more likely to have second or higher parity children. This can be interpreted as meaning that for fertility intention, not only does individual choice matter, but that there is also room for organizational factors to contribute to boosting fertility rates. In other words, if more family-friendly organizational culture is available, employees in those organizations are willing to have more children.

Organizations with family-hostile cultures see women employees not as women whose maternity is to be protected, but as just one more employee (Williams 2010). As a result, they view maternity as an obstruction that keeps women employees from their commitment to their job and organization (Kirby and Krone 2002). However, increasing women employees' accessibility to family-friendly programs by changing family-hostile organizational cultures can lead to better results on fertility. For example, some companies discourage their employees from using costly programs, such as childcare leave and flexibility programs. Nevertheless, if companies allow their employees to use them, despite the cost, and if there is less or no negative impact on the returnees' career, women employees would be more willing to have a second or higher order children.

The findings of these analyses suggest several policy implications for how the use of family-friendly programs contributes to the recovery of fertility rates. First, targeting an

appropriate age group is important to achieve the effectiveness of fertility recovery policies. The fertility boosting effect of using family-friendly programs varies by beneficiary's age. As Table 6.4 and Table 6.5 show, a woman manager between the age of 25-34 who uses family-friendly programs, has higher fertility intentions for additional children than female managers in different age groups.

Furthermore, without considering the effect of using family-friendly programs (see Model 1 in Table 6.2), a younger female manager is more likely to have more children after the first child. Given that fertility intention remains positive up to age 30 after controlling for other variables, for young women managers who have never benefited from family-friendly programs or even consider becoming a parent, their age plays a very important role in decision of childbearing. This implies that for a woman who wants to have a child independent of use of the programs, if proper fertility-boosting policies are applied to them, their fertility intention can be connected to actual childbearing practice. Increasing accessibility to family-friendly programs for the younger cohort can achieve larger outcomes.

Second, encouraging use of many programs could lead to better fertility outcomes. Despite it being only a small change, a female manager who used both maternity and childcare leave consecutively has a greater intention for additional children, compared to those who use only maternity leave. Since maternity leave is regarded as a prerequisite for recovery among Korean women after childbirth (Kim 2017), in order to return to the workplace, most women use it. However, a small portion of managers use childcare leave while their children are infants (less than one-year-old). In cases where both maternity and childcare leave are used one after another, mothers can be free from the anxiety of searching for adequate childcare services and take care of their children themselves (Kim and An 2016). Subsequently, the positive personal experience

can result in increased fertility intention. Continuous use of programs, which allows new mothers to be less distressed by having to find childcare facilities, can also contribute to increasing fertility intention. At the same time, policy makers need to pay more attention to possible penalties for using programs (e.g., dismissal and exclusion from promotions and wage increases), which can occur when users come back to the workplace (Kim 2006). Removing potential threats to new mothers' use of long-term programs can encourage female managers to use them, and in turn this contributes to a recovery of fertility rates.

The third implication has to do with strengthening the individual's willingness to use programs independent of the workplace environment. As Table 6.4 and Table 6.6 have shown, those who use the programs have intentions to have second or higher parity children somehow, despite the influence of variables preventing female managers' program use. And the positive effect of using family-friendly programs on fertility intention exceeds the hindering effect of the organization-related variables. In other words, despite working in family-hostile organizational environments, some additional policies that promote the use of individual programs can offset the family-hostility of an organization and positively affect fertility intention. It is important that even the most basic family-friendly programs, such as maternity leave, are used in appropriate ways.

On the other hand, when it comes to a decrease in coefficients of program-use-related variables after controlling for organizational variables, it seems that reforming family-hostile culture can contribute to the recovery of fertility rates. Changing organizational culture positively affects the individual's access to programs, and in the long run, increased accessibility to the programs has a positive impact on fertility intention.

Chapter 7

Conclusion

7.1 Family-Friendly Programs and Their Effects on Korean Female Managers

This dissertation aims to examine the effect of family-family programs on Korean female managers' lives using the five waves of the Korean Women Manager Panel (2007, 2008, 2010, 2012, and 2014). This research investigates: (1) the determinants of the use of family-friendly programs, (2) the consequences for the use of long-term leave programs for users' wage growth and promotion, and (3) the effect of the use of family-friendly programs on fertility plans (i.e., the intention to have more children after the first child).

Across chapters, this dissertation finds workplace culture plays a pivotal role in Korean women managers' decisions to use family-friendly programs and have more children after the first child. Workplace culture also is used as a basis for penalties imposed by employers on the users for the use of family-friendly programs, because it reflects employers' expectation based on the norm of ideal workers and has a significant impact on workers' perception on easiness of using family-friendly programs and risk of career penalty after the use of programs. In terms of the determinants of the use of family-friendly programs (Chapter 4), female managers having a higher level of human capital are less likely to use family-friendly programs, since they face a higher level of employers' expectation based on the ideal worker norm. Two other factors (i.e., the individual's position within a company and the macro features of a company) interacting with workplace culture also affect female managers use of family-friendly programs. In terms of career penalties (Chapter 5), since using long-term leave programs violates the norm of the ideal

worker in the workplace, companies penalize users on this basis, resulting in a family-hostile workplace culture. In Chapter 6, workplace culture leads to variations in the fertility-boosting effect of using family-friendly programs; family-hostile workplace culture reflecting employers' view that family-friendly programs are costly impacts individual's perception on risk of career penalty for using family-friendly programs. Different experiences with workplace culture during/after leaves cause a differential in fertility intention.

The findings of the chapters are summarized as follows: Chapter 4, titled "The Factors Affecting the Use of Family-friendly Programs", highlights the fact that the workplace culture in which female managers are embedded plays a significant role in their decision-making regarding the use of family-friendly programs. Individuals' need to care for their young children drives the use of family-friendly programs, and at the same time the factors interacting with workplace culture mediate the effects of individual needs on the use of family-friendly programs. The norm of the ideal worker within workplace culture influences the level of employers' expectations of employees, company's responsiveness to institutional pressure, and employees' perceptions of family-friendly programs (e.g., easiness to use).

Chapter 5, titled "Unanticipated Consequences of Family-Friendly Programs for Career", confirms results of previous studies demonstrating unanticipated consequences of the use of family-friendly programs contradictory to the original intention of family-friendly programs. It reveals that female managers' use of the long-term leave programs for two years negatively affects their wage growth, but not promotion. Workplace culture is the basis for career penalties for the use of family-friendly programs.

Chapter 6, titled “The Effect of Use of Family-Friendly Programs on Fertility Intention”, shows that some family-friendly programs positively affect Korean female managers’ intention to have an additional child and that the fertility-boosting effects vary by the user’s age. For all childbearing-age women (22-45), using at least one long-term leave program, including maternity leave, has a positive effect on their intention to have an additional child. For female managers aged 25-34, using at least one of any family-friendly program or maternity leave positively affects their intention for another birth. After controlling for organizational factors that prevent female managers’ use of family-friendly programs, the fertility-boosting effect of using these family-family programs remains unchanged. Variation in fertility-boosting effects of the use of family-friendly programs is associated with female managers’ experiences during/after the use of programs, which is influenced by family-hostile workplace culture.

This research makes an important contribution to the literature on family-friendly programs in two respects. First, this is one of the first studies empirically examining the relationship between the use of family-friendly programs and their impacts on the life of female managers in Korea. Most studies on the effect of family-friendly programs have focused on the U.S. and European countries (e.g., Gauthier 2007; Aisenbrey, Evertsson, and Grunow 2009) and only a few studies have investigated the effects in Korea. In particular, little research has investigated the effect of the use of family-friendly programs on users’ career development. Korea has enthusiastically adopted and implemented many family-friendly programs and this study finds that, despite those programmatic efforts, workplace norms or cultures continue to result in family-hostile environments for female workers. I speculate that it is this similar organizational context that leads to similar family-friendly program-related experiences among women workers in Korea and in Western societies despite their different cultural contexts. These

consistent findings across countries seem to suggest that the theoretical frameworks developed in Western literature are also relevant to Korea, and we may apply them to the Korean context when researching the influence of workplace culture on employees' lives.

Second, this research contributes to the literature on the methodology of studying family-friendly programs in Korea. Much of the literature reports that both organizational- and individual-level factors are associated with users' experiences about family-friendly programs (e.g. Blair-Loy and Wharton 2002; Golden 2001), but little research in Korea deals with both levels simultaneously (e.g., Min 2010). For many studies on the adoption and practice of family-friendly programs, organizations are the unit of analysis (e.g., Beak, Kelly, and Jang 2012; Beak and Kelly 2014; Beak and Park 2013; Koo 2009). By using panel data containing information on multi-levels, this dissertation demonstrates a method of analysis that can be adapted to further research on employees' experiences related to family-friendly programs.

7.2 Policy Implications

This dissertation highlights the role of workplace culture in Korean female managers' family-friendly program-related issues. Family-hostile workplace culture assuming the norm of the ideal worker prevents female managers from using family-friendly programs and having additional children and leads to career penalties. Active intervention to change workplace culture could facilitate use of family-friendly programs and minimize career penalties, and thereby could contribute to boosting fertility rates.

It is necessary for the government to establish some policies that can increase the adoption and implementation of family-friendly programs by transforming workplace culture. It

seems to be necessary to reinforce ‘a carrot-and-stick’ policy: increasing incentives and applying harsher penalties. The government should reward companies actively adhering to laws and regulations. As Chapters 5 and 6 argue, employers regard workers’ use of family-friendly programs as a cost, because they must search for and train the users’ substitutes, and thereby employees’ family-friendly program use is discouraged. A provision of incentives that reduce this cost would increase the adoption and implementation of family-friendly programs.

Relieving the financial burden of family-friendly programs on employers could contribute to changes in workplace culture. Because employers may worry about the cost of family-friendly programs burdening a company, they discourage workers from using the programs. For example, when a female employee uses maternity leave, the employer has to pay the amount of maternity leave allowance (100% of ordinal wage of the user) for 60 days (out of 90 days). The financial burden of allowing employees to use family-friendly programs may not be the only reason why they discourage employees’ use, but financial burdens could aggravate their negative views. Government’s provision of subsidies for employers who hire substitutes and re-hire the returnees could reduce financial burdens, and could ameliorate employers’ negative perspective of family-friendly programs.

A greater flexibility in the operation of family-friendly programs can increase their application. As Lee and Lee (2011) claim, it is necessary for the government to allow companies to modify details of certain family-friendly programs based on their size. Chapter 4 states that the capability to provide the benefits of family-friendly programs for employees varies by the size of a company; female managers in small companies are less likely to use family-friendly programs. Therefore, approval for adjusting the benefits among smaller companies can increase

implementation of the family-friendly programs and decrease their hostility toward employees' use of the programs.

The government needs to strengthen supervision and increase the amounts of fines. For instance, when employers violate the Standard Labor Law by not providing their employees with maternity leave, the government imposes a 10 million KRW fine (equivalent to 9,500 USD) or up to two-years imprisonment for the employers, but the latter is rarely implemented. This low level of monetary sanction is not an effective way to force companies to observe regulations. Rather, as deterrence theory in criminology suggests (Bailey and Smith 1973), increased severity of penalty and certainty of governmental supervision and punishment for violation of the laws and regulations will bring about changes in organizational practices.

On top of policies targeting individuals and organizations, policies dealing with national-level issues, such as the labor market, housing, and education – although they are not within the scope of this research – will also alleviate work-family conflicts and help increase fertility in Korea.

7.3 Limitations

Despite the aforementioned significant findings related to the use of family-friendly programs among Korean female managers, this research has limitations, mainly stemming from the data. First, the design of the KWMP may lead to limitations in generalizing results. As described in Chapter 3, the sample of the data includes Korean female managers (assistant managers to higher level managers) working at companies with 100 or more employees, which means that most respondents are regular employees, have a high rank, and occupy relatively high socio-economic

status. For example, according to data from the fourth wave, 71.9% of the respondents received a bachelor degree or higher level of education. This is quite a high rate, compared to that of all female employees (29.3%) in March 2018 (Statistics Korea 2018).[16] Most importantly, irregular workers are excluded by the research design. Their demographic characteristics do not represent the diversity of all female workers of the same age in Korea. Therefore, rather than presenting general conditions among all female workers in the country, the results of this study should be limited to female managers with regular employment.

Second, the high attrition rate of the respondents in the KWMP may affect the results of this study. After getting married or becoming pregnant, a large number of female employees quit their jobs (Kim 2006). Moreover, many Korean female workers who use maternity leave involuntarily utilize childcare leave upon their employer's request, and this situation often causes them to leave the labor market (Kim 2006; Seo and Kim 2016). These characteristics of the Korean labor market significantly affect the attrition rate of the KWMP sample. To maintain the number of analyzable observations, the panel survey conductors replenished respondents a few times. In addition, they try to follow the respondents that left the KWMP to take a new job, become self-employed, or leave the labor market. Given that the substituted respondents are not exactly identical to the characteristics of the original sample, the results may be affected.

7.4 Future Research

This dissertation may be expanded upon in three ways. First, future research may trace the effects of the use of family-friendly programs on promotion for a longer duration. Many studies

16 Regardless of employee's age

that investigate negative influences of the use of maternity and/or childcare leave on the users' career development employ data that cover longer periods of time (e.g., Eigenbrey, Evertsson, and Grunow for nine years; Judiesch and Lyness for three to five years). However, since only five waves of the KWMP are available thus far, it was difficult to examine the long-term influence of the use of the programs on promotion. Studying a longer period of time, there may appear a negative effect from the use of long-term leave programs on promotion because more events of promotion screening can be observed.

In addition, future studies may also consider family-friendly programs other than the long-term leave programs. Most existing research, including this dissertation, focuses on the effect of long-term leave programs on career development of female users. They argue that three reasons (i.e., the cost of leave, depreciation of human capital, and statistical discrimination) cause negative consequences after the use of long-term leave programs (Aisenbrey, Evertsson, and Grunow 2009; Mincer and Polacheck 1974; Mandel and Shalev 2006). One may expect that the characteristics of other family-friendly programs, such as lower costs of leave, may lead to different results on users' career development.

Second, future research may compare female and male managers in their experiences after using family-friendly programs in Korea. Much of the previous literature focuses on female workers, and a few studies examining the influence of the use of family-friendly programs on male users' career development report controversial results. Some report that male users also experience negative consequences (e.g., Rudman and Mescher 2013; Coltrane et al. 2013; Vandello et al. 2013; Kim and Kwon 2015), but others argue that there is no significant effect (e.g., Berdahl and Moon 2013). Using a sub-sample of the KWMP, which surveyed male managers, will show how the use of family-friendly programs (under the family-hostile

environment of Korea) impacts male users' wage growth and promotion. One may expect that male users are also penalized as are the female users; since the ideal worker norm is applied to all employees irrespective of their gender and since the norm of male-breadwinner and female-homemaker forces men to be primary income-earners, male users who violate both norms are likely to be penalized.

Third, future research may examine variations in the impact of the family-friendly programs on employees' lives across countries from a comparative perspective. Much of the literature on the use of the family-friendly programs is conducted in the United States and European countries (e.g., Aisenbrey, Evertsson, and Grunow 2009 for job mobility in U.S., Germany, and Sweden; Gauthier 2007 for fertility outcomes in industrialized countries) and a few studies compare how the effect varies among multiple countries. So far, little research investigates the impact of family-friendly programs in East Asian countries, which have actively adopted the programs as a result of their low fertility rates, to compare their effects with those of Western countries and other Asian countries. It is expected that there are variations in the influences of family-friendly programs on employees' lives, such as career development and fertility plans, because of differences across societies in their gender-related norms (i.e., ideal worker norm and gendered division of labor norm) and welfare systems. This dissertation takes a small but hopefully important step toward such future developments.

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